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DEPARTMENT OF PHYSICS AND GEOPHYSICAL SCIENCES
SCHOOL OF SCIENCES
OLD DOMINION UNIVERSITY
NORFOLK, VIRGINIA

Technical Report PGS-AP-75-11

PLYMOUTH PARK, CHESAPEAKE, VIRGINIA
AIR QUALITY EXPERIMENT
JUNE 20 - JULY 11, 1975

Prepared by
G.E. Copeland

Conducted by the
Old Dominion University Atmospheric Research Group
in conjunction with the
National Aeronautics and Space Administration
Langley Research Center
and the
Virginia State Air Pollution Control Board

Supported by
NASA Grant NGL 47-003-067

September 1975

OLD DOMINION UNIVERSITY RESEARCH FOUNDATION

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Submitted by the
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Norfolk, Virginia 23508

September 1975

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CONTENTS

INTRODUCTION

The Old Dominion University Atmospheric Research Group in conjunction with NASA Langley Research Center and the Air Pollution Control Board of Virginia conducted a detailed field study of the various air pollutants in the South Norfolk Section of the City of Chesapeake during the last half of June and the first half of July 1975. This document reports the data collected by the ODU Atmospheric Research Group, its calibration and processing procedures.

The results of this 22-day experiment are in the attached appendices which contain:

A) The detailed data for 18 environmental parameters for every hour (528) of the experiment;

B) A tabular listing showing the frequency of occurrence of the various values;

C) The graphical histograms of the important parameters;

D) The detailed meteorological data for the region for the duration of the experiment; and

E) The listings of the computer programs used in the processing of the data.

then to a span source, so that continuous calibration of the instruments was obtained. All instruments were initially calibrated in the ODU Air Standards Laboratory.

Data from all instruments was level shifted and placed on several strip chart recorders (continuous X-T recorders and multichannel recorders).

All reported data reflects an averaging procedure. Strip chart records were broken down into 1-hour segments. Each hour of data was graphically averaged to yield "hourly averages." These were recorded for each instrument. A similar procedure was used to record zeroes and spans introduced into the data set. A time series least squares analysis technique was used to minimize electronic drift of instruments by having a time dependent true zero for each instrument. (See Appendix E for details)

Finally, the data set (18 x 528 = 9504 data points ÷ 9504 zeroes) were placed in mass storage of the ODU DEC-10 computer system and a series of programs were written to convert these chart readings into engineering units, and to output the data stream in a readable format (See Appendix E for the computer programs).

CALIBRATION EQUATIONS:

All data, R, was recorded on a strip chart and was in the range 0 to 1000. (R is the Reading on this scale.) Each instrument was calibrated in the Standards Laboratory and calibration was maintained by the data collection procedure. All calibration equations reflect nonweighted least squares fitting techniques. Let

$$\Delta R = R(\text{Data}) - R(\text{Zero})$$

Then, most instruments' calibration equations are of the form:

$$y(ppb) = A \times (\Delta R) + B$$

Below is a list of instruments and their calibration characteristics:
(ρ is the linear correlation coefficient)

1. Hydrocarbons: Meloy Flame Ionization Detection

   $y(ppb) = 0.01058665 \times (\Delta R) - 1.3500$

   $\rho = 0.9999289$

2. Ozone: Ethylene - Ozone Chemilumenscence

   $y(ppb) = .407802 \times (\Delta R) + 0.4035995$

   $\rho = 0.998665$

3. NO: Bendix NOX Meter

   $y(ppb) = 0.5 \times (R)$

4. NO2: Bendix NOX Meter

   $y(ppb) = 0.5021172 \times (R) + .8705642$

5. Reduced Sulfur: Flame Photometric Instrument (Meloy and Scrubber)

   $y(ppb) = 4.542258 \times (\Delta R)^{0.5085551}$

6. Total Sulfur: Meloy Flame Photometric

   $y(ppb) = 1.1711214 \times (\Delta R)^{0.9272089}$

7. Temperature

   $T(^{o}C) = 0.03504743 \times (R) + 5.5053$

8. Solar Radiation

   $y\left(\frac{cal}{cm^2 min}\right) = (7.941E\text{-}3) \times (R)$

9. Wind speed and direction (directly from charts in mph and compass points)

In all cases, ΔR, (Reading - ZERO), were obtained by fitting a linear trend equation to the Zero readings to remove electronic drifts.

COMPUTER DATA REDUCTION

All readings for each instrument were manually averaged by human data loggers to yield accurate hourly averages, spans and zeroes. These data were put on to separate paper tape files for entrance into the DEC-10 system. Once inputted into this time sharing system, the zero files of the various instruments were processed by a sliding zero program to yield files with zeroes for each of the 528 hours. These zero files were then subtracted from the appropriate data reading files to yield ΔR files for all instruments. These ΔR files were broken into five (5) files.

The major computer program is named PLMOUT (Plymouth Output) and is written in BASIC-10. This program executes in a time shared environment so that the analyst can control its development. A flow diagram is shown in Figure 1 which indicates the data flow and calculation techniques. Output consists of 66 pages (each 66 lines) which constitutes Appendix A.

The preliminary statistical analysis of the data is handled by the program HISTO (flow diagram in Figure 2). This program opens the data file BERKDT written by PLMOUT. It reads 18 sub files, finds the minimum values, maximum value, range, average value of non-zero entries, lists the frequencies of observations and plots a histogram of the data where each x is 1 hourly reading. The output from HISTO constitutes Appendix B and C.

METEOROLOGICAL DATA

Meteorological data (Appendix D) is presented for each day of the field operation, utilizing two formats. The first format consists of hourly observations of sky conditions, visibility and restrictions (i.e., haze, fog, showers, thundershowers, etc.), temperature, and wind direction (measured from true north) and speed, as observed at the Naval Air Station (NGU), Norfolk. Additionally, observations of general weather, temperature, and wind direction/speed, made by Portsmouth Gas Company (PGCO - located approximately 5½ miles from the van site) are listed on an hourly basis, plus 6 wind directions and general weather from Lake Kilby Pumping Station, and the average hourly temperature and wind condition, as recorded by the van.

The second format consists of sectional maps of the Tidewater area, valid at 0000Z (8 PM EST) and 1200Z (8 AM EST), with observed weather conditions plotted for Patrick Henry (PHF), Langley AFB (LFI), Norfolk International Airport (ORF), Oceana NAS (NTU), Norfolk NAS (NGU), PGCO, Lake Kilby, and the ODU van plus rawinsonde data (vertical sounding of temperature and wind) for Wallops Island (WAL). An estimate of the 2,000 foot (2K) wind at the van site is reflected on each map.

APPENDIX A

Data Output for Plymouth Park Experiment

Old Dominion University Atmospheric Research Group

This section is paged 1-1, 1-2, 1-3, 2-1, 2-2, 2-3 since each day has 3 pages of output (-1, -2, -3). All data are in engineering units. All negative values indicate missing data (-9 or -9000).

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 20 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	-9	-9	-9	-9	18	5	0 - 1
1 - 2	-9	-9	-9	-9	3	5	1 - 2
2 - 3	-9	-9	-9	-9	4	5	2 - 3
3 - 4	-9	-9	-9	-9	-9	5	3 - 4
4 - 5	-9	-9	-9	-9	4	5	4 - 5
5 - 6	-9	-9	-9	-9	7	5	5 - 6
6 - 7	-9	-9	-9	-9	7	5	6 - 7
7 - 8	-9	-9	-9	-9	7	5	7 - 8
8 - 9	-9	-9	-9	-9	0	5	8 - 9
9 - 10	44	2249	1646	603	4	5	9 - 10
10 - 11	60	2207	1677	529	0	5	10 - 11
11 - 12	59	1963	1466	497	0	5	11 - 12
12 - 13	46	1825	1402	423	0	5	12 - 13
13 - 14	50	1804	1423	381	0	5	13 - 14
14 - 15	60	1593	1391	201	0	5	14 - 15
15 - 16	53	1582	1370	211	0	5	15 - 16
16 - 17	57	1794	1487	307	0	5	16 - 17
17 - 18	65	1624	1381	243	0	5	17 - 18
18 - 19	56	1646	1360	285	0	5	18 - 19
19 - 20	61	1730	1360	370	0	5	19 - 20
20 - 21	61	-9	-9	-9	0	5	20 - 21
21 - 22	59	-9	-9	-9	0	5	21 - 22
22 - 23	50	-9	-9	-9	0	5	22 - 23
23 - 24	42	-9	-9	-9	0	5	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 20 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	23	20.3	84	25.8	78.5	0 - 1
1 - 2	-9	24	20.94	87	25.8	78.4	1 - 2
2 - 3	-9	24	21.49	90	25.6	78.1	2 - 3
3 - 4	-9	20	21.24	90	25.4	77.7	3 - 4
4 - 5	-9	20	20.4	88	25.1	77.2	4 - 5
5 - 6	-9	25	19.93	88	24.7	76.4	5 - 6
6 - 7	1	26	20.85	88	25.5	77.9	6 - 7
7 - 8	0	21	22.76	88	27.1	80.7	7 - 8
8 - 9	2	30	22.97	83	28.3	82.9	8 - 9
9 - 10	2	17	21.72	77	28.6	83.5	9 - 10
10 - 11	1	13	20.99	73	29	84.2	10 - 11
11 - 12	-9	13	21.48	73	29.4	84.9	11 - 12
12 - 13	-9	11	22.22	73	30	86.1	12 - 13
13 - 14	-9	11	22.03	71	30.4	86.7	13 - 14
14 - 15	0	11	21.84	70	30.5	86.9	14 - 15
15 - 16	-9	13	20.81	69	29.9	85.8	15 - 16
16 - 17	-9	13	20.13	67	29.8	85.6	16 - 17
17 - 18	0	13	19.16	66	29.2	84.5	17 - 18
18 - 19	-9	13	19.56	70	28.5	83.2	18 - 19
19 - 20	-9	18	17.76	70	26.7	80.1	19 - 20
20 - 21	-9	18	17.31	76	24.8	76.6	20 - 21
21 - 22	-9	18	17.04	81	23.4	74.1	21 - 22
22 - 23	-9	19	17.49	86	22.8	73	22 - 23
23 - 24	-9	35	17.81	89	22.5	72.5	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 20 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	1	135	0.3	0.024	9	0 - 1
1 - 2	0	1	135	0.3	2.30000E-2	8	1 - 2
2 - 3	0	1	135	0.3	0.028	10	2 - 3
3 - 4	0	1	135	0.3	2.30000E-2	8	3 - 4
4 - 5	0	1	135	0.3	0.02	7	4 - 5
5 - 6	0	1	90	0.3	0.017	6	5 - 6
6 - 7	0	0.5	45	0.3	0.016	6	6 - 7
7 - 8	0	0.5	0	0.3	0.025	9	7 - 8
8 - 9	0	1	0	0.3	0.047	17	8 - 9
9 - 10	0	3	0	0.3	0.071	26	9 - 10
10 - 11	0	5	0	0.2	0.055	20	10 - 11
11 - 12	0	5	0	0.2	0.05	18	11 - 12
12 - 13	0	3	0	0.2	0.045	16	12 - 13
13 - 14	0	3	0	0.2	0.045	16	13 - 14
14 - 15	0	2	0	0.1	0.05	18	14 - 15
15 - 16	1	4	0	0.1	0.047	17	15 - 16
16 - 17	0.8	5	0	0.2	0.032	12	16 - 17
17 - 18	0.6	4	0	0.2	3.90000E-2	14	17 - 18
18 - 19	0.3	4	45	0.1	0.032	12	18 - 19
19 - 20	0.1	2	45	0.1	0.031	11	19 - 20
20 - 21	0	3	90	0.1	0.032	12	20 - 21
21 - 22	0	2	90	0.1	2.20000E-2	8	21 - 22
22 - 23	0	0.5	135	0.1	0.019	7	22 - 23
23 - 24	0	0.5	180	0.1	0.018	6	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 21 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	20	-9	-9	-9	7	5	0 - 1
1 - 2	-9	-9	-9	-9	7	5	1 - 2
2 - 3	-9	-9	-9	-9	0	5	2 - 3
3 - 4	-9	-9	-9	-9	3	5	3 - 4
4 - 5	-9	-9	-9	-9	4	5	4 - 5
5 - 6	8	-9	-9	-9	0	5	5 - 6
6 - 7	22	-9	-9	-9	0	5	6 - 7
7 - 8	38	-9	-9	-9	0	5	7 - 8
8 - 9	62	-9	-9	-9	0	5	8 - 9
9 - 10	66	-9	-9	-9	0	5	9 - 10
10 - 11	59	-9	-9	-9	0	5	10 - 11
11 - 12	35	2005	1571	434	0	5	11 - 12
12 - 13	35	1614	1561	52	0	5	12 - 13
13 - 14	36	1804	1646	158	0	5	13 - 14
14 - 15	37	1910	1741	169	0	5	14 - 15
15 - 16	37	1974	1794	179	0	5	15 - 16
16 - 17	31	2005	1825	179	0	5	16 - 17
17 - 18	39	1974	1836	137	0	5	17 - 18
18 - 19	37	1953	1783	169	0	5	18 - 19
19 - 20	32	1889	1698	190	0	5	19 - 20
20 - 21	31	1804	1561	243	0	5	20 - 21
21 - 22	10	1889	1593	296	0	5	21 - 22
22 - 23	6	1847	1550	296	0	5	22 - 23
23 - 24	-9	2037	1688	349	0	5	23 - 24

PLYMOUTH PARK EXPERIMENT
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JUNE 21 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	40	18.19	90	22.7	72.8	0 - 1
1 - 2	0	44	18.44	94	22.2	71.9	1 - 2
2 - 3	0	41	18.09	97	21.3	70.3	2 - 3
3 - 4	6	32	17.62	98	20.6	69.2	3 - 4
4 - 5	16	43	18.2	98	21.2	70.2	4 - 5
5 - 6	0	37	18.57	98	21.6	70.8	5 - 6
6 - 7	-9	25	19.5	98	22.4	72.3	6 - 7
7 - 8	-9	13	19.51	90	23.9	75	7 - 8
8 - 9	-9	13	17.37	77	24.6	76.3	8 - 9
9 - 10	-9	10	16.96	73	25.1	77.2	9 - 10
10 - 11	-9	10	16.92	71	25.6	78.1	10 - 11
11 - 12	-9	9	16.51	69	25.7	78.2	11 - 12
12 - 13	-9	8	16.1	66	26	78.8	12 - 13
13 - 14	0	8	15.92	64	26.4	79.4	13 - 14
14 - 15	-9	6	15.55	62	26.5	79.7	14 - 15
15 - 16	0	9	14.97	59	26.7	80.1	15 - 16
16 - 17	-9	8	13.66	56	26	78.8	16 - 17
17 - 18	0	6	14.01	58	25.8	78.5	17 - 18
18 - 19	-9	7	13.14	56	25.3	77.6	18 - 19
19 - 20	0	8	12.36	57	23.9	75	19 - 20
20 - 21	-9	15	11.8	61	21.9	71.4	20 - 21
21 - 22	-9	23	12.3	68	20.8	69.4	21 - 22
22 - 23	-9	25	12.73	73	20.1	68.2	22 - 23
23 - 24	0	28	13.16	75	20.2	68.4	23 - 24

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JUNE 21 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	0	180	-9	0.018	6	0 - 1
1 - 2	0	0	180	-9	0.017	6	1 - 2
2 - 3	0	0	180	-9	0.019	7	2 - 3
3 - 4	0	0	180	-9	0.02	7	3 - 4
4 - 5	0	0	135	-9	0.018	6	4 - 5
5 - 6	0	0	135	-9	0.018	6	5 - 6
6 - 7	0.1	0	135	-9	2.30000E-2	8	6 - 7
7 - 8	0.4	1	135	-9	0.031	11	7 - 8
8 - 9	0.6	3	90	-9	0.034	12	8 - 9
9 - 10	0.8	5	90	-9	0.036	13	9 - 10
10 - 11	1.1	5	90	-9	0.034	12	10 - 11
11 - 12	1.2	6	90	-9	0.034	12	11 - 12
12 - 13	1.3	6	90	-9	0.029	11	12 - 13
13 - 14	1.3	6	90	-9	0.027	10	13 - 14
14 - 15	1	6	90	-9	0.025	9	14 - 15
15 - 16	1.1	5	90	-9	0.025	9	15 - 16
16 - 17	0.9	6	90	-9	0.024	9	16 - 17
17 - 18	0.6	6	90	-9	2.30000E-2	8	17 - 18
18 - 19	0.3	5	90	-9	2.30000E-2	8	18 - 19
19 - 20	0.1	4	90	-9	2.30000E-2	8	19 - 20
20 - 21	0	3	90	-9	0.018	6	20 - 21
21 - 22	0	0.5	90	-9	0.018	6	21 - 22
22 - 23	0	0.5	90	-9	2.30000E-2	8	22 - 23
23 - 24	0	0.5	90	-9	0.018	6	23 - 24

PLYMOUTH PARK EXPERIMENT
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JUNE 22 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	4	1751	1476	275	0	5	0 - 1
1 - 2	1	-9	-9	-9	0	5	1 - 2
2 - 3	-9	-9	-9	-9	0	5	2 - 3
3 - 4	-9	1900	1624	275	0	5	3 - 4
4 - 5	1	1857	1529	328	7	5	4 - 5
5 - 6	2	1836	1497	338	0	5	5 - 6
6 - 7	8	1709	1434	275	0	5	6 - 7
7 - 8	22	1508	1296	211	0	5	7 - 8
8 - 9	23	1518	1339	179	0	5	8 - 9
9 - 10	28	1593	1434	158	0	5	9 - 10
10 - 11	31	1688	1518	169	0	5	10 - 11
11 - 12	26	1698	1529	169	0	5	11 - 12
12 - 13	28	1825	1624	201	0	5	12 - 13
13 - 14	28	1762	1603	158	0	-9	13 - 14
14 - 15	43	1762	1571	190	13	-9	14 - 15
15 - 16	56	1836	1646	190	13	-9	15 - 16
16 - 17	47	2619	1931	688	13	-9	16 - 17
17 - 18	31	1646	1476	169	13	-9	17 - 18
18 - 19	37	1656	1508	148	13	-9	18 - 19
19 - 20	39	1720	1518	201	13	-9	19 - 20
20 - 21	33	1709	1466	243	13	-9	20 - 21
21 - 22	31	1688	1434	254	13	-9	21 - 22
22 - 23	30	-9	-9	-9	13	-9	22 - 23
23 - 24	27	-9	-9	-9	13	-9	23 - 24

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JUNE 22 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	20	13.23	77	19.9	67.8	0 - 1
1 - 2	-9	26	12.98	79	19.1	66.4	1 - 2
2 - 3	-9	28	12.96	85	17.8	64.1	2 - 3
3 - 4	-9	25	13.38	90	17.4	63.4	3 - 4
4 - 5	-9	18	13.98	95	17.2	63	4 - 5
5 - 6	-9	20	14.27	96	17.4	63.4	5 - 6
6 - 7	-9	18	15.74	97	18.9	66	6 - 7
7 - 8	-9	10	16.6	89	21.3	70.3	7 - 8
8 - 9	-9	8	16.91	78	23.9	75	8 - 9
9 - 10	-9	8	15.88	70	24.7	76.5	9 - 10
10 - 11	-9	5	15.58	62	26.5	79.8	10 - 11
11 - 12	-9	6	15.26	59	27.1	80.7	11 - 12
12 - 13	-9	6	15.15	58	27.2	81	12 - 13
13 - 14	-9	6	15.77	57	28.3	82.9	13 - 14
14 - 15	-9	6	15.5	56	28.3	82.9	14 - 15
15 - 16	-9	8	16.26	56	29.2	84.5	15 - 16
16 - 17	-9	8	15.23	54	28.6	83.5	16 - 17
17 - 18	-9	8	15.06	56	27.8	82	17 - 18
18 - 19	-9	8	14.86	58	26.9	80.4	18 - 19
19 - 20	-9	10	13.47	58	25.1	77.2	19 - 20
20 - 21	-9	15	12.13	61	22.4	72.3	20 - 21
21 - 22	-9	14	10.7	56	21.7	71.1	21 - 22
22 - 23	-9	14	13.2	73	20.8	69.4	22 - 23
23 - 24	-9	15	13.19	78	19.6	67.3	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 22 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	1	90	-9	2.30000E-2	8	0 - 1
1 - 2	0	0	90	-9	0.02	7	1 - 2
2 - 3	0	0	90	-9	0.017	6	2 - 3
3 - 4	0	0.	90	-9	2.30000E-2	8	3 - 4
4 - 5	0	0	90	-9	0.02	7	4 - 5
5 - 6	0	0	90	-9	0.018	6	5 - 6
6 - 7	0.1	1	135	-9	0.02	7	6 - 7
7 - 8	0.4	2.	135	-9	2.30000E-2	8	7 - 8
8 - 9	0.6	2	135	-9	2.30000E-2	8	8 - 9
9 - 10	0.9	1	135	-9	2.30000E-2	8	9 - 10
10 - 11	1.2	2	135	-9	0.02	7	10 - 11
11 - 12	1.2	2	180	-9	0.02	7	11 - 12
12 - 13	1.2	2	180	-9	0.02	7	12 - 13
13 - 14	1.1	3	135	-9	0.027	10	13 - 14
14 - 15	1.2	2	135	0.1	2.30000E-2	8	14 - 15
15 - 16	1.2	2	135	0.1	0	0	15 - 16
16 - 17	0.9	5	135	0.1	0.026	9	16 - 17
17 - 18	0.7	6	135	0.1	2.30000E-2	8	17 - 18
18 - 19	0.4	6	135	0.3	0.02	7	18 - 19
19 - 20	0.1	4	135	0.3	0.019	7	19 - 20
20 - 21	0.1	3	135	-9	0.02	7	20 - 21
21 - 22	0	3	135	-9	0.019	7	21 - 22
22 - 23	0	3	135	-9	0.019	7	22 - 23
23 - 24	0	2	135	-9	0.018	6	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 23 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	20	-9	-9	-9	13	-9	0 - 1
1 - 2	17	-9	-9	-9	13	-9	1 - 2
2 - 3	22	-9	-9	-9	13	-9	2 - 3
3 - 4	22	-9	-9	-9	13	-9	3 - 4
4 - 5	14	-9	-9	-9	13	-9	4 - 5
5 - 6	11	-9	-9	-9	13	-9	5 - 6
6 - 7	11	-9	-9	-9	13	-9	6 - 7
7 - 8	9	-9	-9	-9	13	-9	7 - 8
8 - 9	8	-9	-9	-9	13	-9	8 - 9
9 - 10	21	1730	1413	317	13	-9	9 - 10
10 - 11	36	1900	1571	328	13	-9	10 - 11
11 - 12	33	1709	1497	211	0	6	11 - 12
12 - 13	24	396	259	137	0	5	12 - 13
13 - 14	37	2736	2471	264	14	5	13 - 14
14 - 15	34	2440	2260	179	0	-9	14 - 15
15 - 16	33	2545	2302	243	0	-9	15 - 16
16 - 17	35	3953	2768	1185	0	-9	16 - 17
17 - 18	24	4387	3244	1143	0	5	17 - 18
18 - 19	18	3181	2545	635	0	5	18 - 19
19 - 20	43	2937	2408	529	0	5	19 - 20
20 - 21	62	-9	-9	-9	0	5	20 - 21
21 - 22	62	-9	-9	-9	0	5	21 - 22
22 - 23	66	9289	-9000	-9000	0	5	22 - 23
23 - 24	62	3731	2662	1069	0	5	23 - 24

PLYMOUTH PARK EXPERIMENT
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ATMOSPHERIC RESEARCH GROUP

JUNE 23 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	15	13.63	84	18.9	66	0 - 1
1 - 2	-9	15	14.13	88	18.7	65.7	1 - 2
2 - 3	-9	11	13.89	90	18.1	64.5	2 - 3
3 - 4	-9	10	13.68	92	17.4	63.4	3 - 4
4 - 5	-9	13	13.54	94	16.9	62.4	4 - 5
5 - 6	-9	17	13.46	96	16.4	61.6	5 - 6
6 - 7	1	18	16.37	97	19.6	67.2	6 - 7
7 - 8	8	16	18.19	92	22.3	72.1	7 - 8
8 - 9	5	19	17.14	76	24.6	76.3	8 - 9
9 - 10	1	10	14.26	62	25	76.9	9 - 10
10 - 11	-9	15	14.6	57	26.9	80.4	10 - 11
11 - 12	-9	8	15.46	55	28.6	83.4	11 - 12
12 - 13	-9	10	14.67	53	28.3	82.9	12 - 13
13 - 14	-9	8	16.6	53	30.6	87	13 - 14
14 - 15	-9	8	16.81	52	31.2	88.1	14 - 15
15 - 16	-9	9	16.43	51	31.1	88	15 - 16
16 - 17	-9	8	19.23	62	30.4	86.7	16 - 17
17 - 18	1	8	15.68	54	29.2	84.5	17 - 18
18 - 19	5	12	15.[illegible]	57	28.1	82.6	18 - 19
19 - 20	5	13	14.93	60	26.4	79.4	19 - 20
20 - 21	1	15	14.01	64	24.1	75.3	20 - 21
21 - 22	10	20	13.93	70	22.4	72.3	21 - 22
22 - 23	11	26	13.67	73	21.3	70.4	22 - 23
23 - 24	10	18	13.65	77	20.4	68.7	23 - 24

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JUNE 23 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	0.5	180	-9	0.019	7	0 - 1
1 - 2	0	0.5	180	-9	0.02	7	1 - 2
2 - 3	0	0.5	180	-9	0.02	7	2 - 3
3 - 4	0	0.5	180	-9	0.019	7	3 - 4
4 - 5	0	0.5	180	-9	0.018	6	4 - 5
5 - 6	0	0.5	180	-9	0.018	6	5 - 6
6 - 7	0.1	0.5	180	-9	0.018	6	6 - 7
7 - 8	0.4	0.5	180	-9	0.02	7	7 - 8
8 - 9	0.6	2	225	-9	2.30000E-2	8	8 - 9
9 - 10	0.8	2	225	-9	0.025	9	9 - 10
10 - 11	1	2	225	-9	0.026	9	10 - 11
11 - 12	1.2	3	225	-9	0.026	9	11 - 12
12 - 13	1.3	3	180	-9	0.029	10	12 - 13
13 - 14	1.3	3	180	-9	0.031	11	13 - 14
14 - 15	1.3	4	135	-9	0.031	11	14 - 15
15 - 16	1.1	3	135	-9	0.031	11	15 - 16
16 - 17	0.9	4	135	-9	0.036	13	16 - 17
17 - 18	0.6	5	135	-9	0.029	11	17 - 18
18 - 19	0.3	5	135	-9	2.30000E-2	8	18 - 19
19 - 20	0.1	4	135	-9	0.02	7	19 - 20
20 - 21	0	2	135	-9	0.019	7	20 - 21
21 - 22	0	2	135	-9	2.30000E-2	8	21 - 22
22 - 23	0	1	135	-9	0.034	12	22 - 23
23 - 24	0	1	180	-9	0.02	7	23 - 24

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JUNE 24 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	69	3593	2916	677	0	5	0 - 1
1 - 2	84	3943	3011	931	0	5	1 - 2
2 - 3	82	3488	2704	783	0	5	2 - 3
3 - 4	85	3297	2609	688	0	5	3 - 4
4 - 5	84	-9	-9	-9	0	5	4 - 5
5 - 6	84	-9	-9	-9	0	5	5 - 6
6 - 7	84	2979	2662	317	0	5	6 - 7
7 - 8	54	3096	2715	381	0	-9	7 - 8
8 - 9	51	2683	2365	317	0	-9	8 - 9
9 - 10	43	2725	2365	359	40	-9	9 - 10
10 - 11	42	2609	2207	402	28	6	10 - 11
11 - 12	44	2704	2270	434	51	6	11 - 12
12 - 13	47	2905	2492	412	48	6	12 - 13
13 - 14	46	3265	2694	571	28	6	13 - 14
14 - 15	54	3773	2958	815	11	6	14 - 15
15 - 16	52	4133	3064	1069	0	6	15 - 16
16 - 17	51	4324	3096	1228	0	6	16 - 17
17 - 18	52	3858	2895	963	0	6	17 - 18
18 - 19	41	4038	3011	1026	0	6	18 - 19
19 - 20	34	-9	-9	-9	0	6	19 - 20
20 - 21	17	-9	-9	-9	0	6	20 - 21
21 - 22	12	-9	-9	-9	0	6	21 - 22
22 - 23	13	-9	-9	-9	0	6	22 - 23
23 - 24	10	-9	-9	-9	0	6	23 - 24

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JUNE 24 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	10	18	13.81	80	19.9	67.9	0 - 1
1 - 2	10	18	13.58	82	19.2	66.6	1 - 2
2 - 3	10	23	12.93	87	17.4	63.4	2 - 3
3 - 4	10	18	13.44	90	17.5	63.5	3 - 4
4 - 5	9	18	13.54	93	17.1	62.7	4 - 5
5 - 6	9	18	13.26	94	16.5	61.8	5 - 6
6 - 7	7	20	15.07	96	18.3	65	6 - 7
7 - 8	20	30	18.01	90	22.5	72.5	7 - 8
8 - 9	4	20	16.64	76	24.1	75.3	8 - 9
9 - 10	6	16	15.71	65	25.8	78.5	9 - 10
10 - 11	2	10	16.46	63	27.2	81	10 - 11
11 - 12	-9	-9	17.58	60	29.3	84.8	11 - 12
12 - 13	-9	-9	17.39	55	30.7	87.3	12 - 13
13 - 14	7	5	18.74	53	32.8	91.1	13 - 14
14 - 15	1	2	19.44	52	33.9	93	14 - 15
15 - 16	1	1	18.99	51	33.8	92.9	15 - 16
16 - 17	2	3	18.73	52	33.2	91.7	16 - 17
17 - 18	2	2	17.87	56	30.9	87.6	17 - 18
18 - 19	3	2	16.9	59	28.9	84.1	18 - 19
19 - 20	2	4	16.46	63	27.2	81	19 - 20
20 - 21	1	6	16.35	69	25.5	77.9	20 - 21
21 - 22	1	8	16.68	75	24.4	75.8	21 - 22
22 - 23	-9	8	16.41	78	23.4	74.1	22 - 23
23 - 24	1	8	16.74	82	22.9	73.1	23 - 24

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JUNE 24 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	0.5	225	-9	0.016	5	0 - 1
1 - 2	0	0.5	225	-9	0.018	6	1 - 2
2 - 3	0	0.5	225	-9	0.017	6	2 - 3
3 - 4	0	0.5	225	-9	0.019	7	3 - 4
4 - 5	0	0.5	180	-9	0.018	6	4 - 5
5 - 6	0	0.5	180	-9	0.018	6	5 - 6
6 - 7	0.1	0.5	180	-9	0.02	7	6 - 7
7 - 8	0.3	1	225	-9	0.027	10	7 - 8
8 - 9	0.6	2	225	-9	0.025	9	8 - 9
9 - 10	0.8	3	225	-9	0.025	9	9 - 10
10 - 11	1	4	225	0.1	0.029	11	10 - 11
11 - 12	0	4	225	0.1	0	0	11 - 12
12 - 13	0	3	180	0.1	0	0	12 - 13
13 - 14	1.2	2	225	0.1	0.029	11	13 - 14
14 - 15	1.2	2	225	0.2	0.03	11	14 - 15
15 - 16	1	2	180	0.2	0.029	11	15 - 16
16 - 17	0.8	3	135	0.2	0.029	11	16 - 17
17 - 18	0.5	6	135	0.2	0.027	10	17 - 18
18 - 19	0.3	4	135	0.2	0.025	9	18 - 19
19 - 20	0.1	4	135	0.2	2.20000E-2	8	19 - 20
20 - 21	0.1	2	135	0.3	0.019	7	20 - 21
21 - 22	0	1	180	0.3	0.019	7	21 - 22
22 - 23	0	2	180	0.1	0.017	6	22 - 23
23 - 24	0	1	180	0.1	0.016	5	23 - 24

PLYMOUTH PARK EXPERIMENT
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JUNE 25 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	11	-9	-9	-9	0	6	0 - 1
1 - 2	11	-9	-9	-9	0	6	1 - 2
2 - 3	14	-9	-9	-9	0	6	2 - 3
3 - 4	15	-9	-9	-9	0	6	3 - 4
4 - 5	12	-9	-9	-9	0	6	4 - 5
5 - 6	1	-9	-9	-9	24	6	5 - 6
6 - 7	-9	-9	-9	-9	58	6	6 - 7
7 - 8	-9	-9	-9	-9	0	6	7 - 8
8 - 9	14	-9	-9	-9	0	6	8 - 9
9 - 10	34	-9	-9	-9	0	6	9 - 10
10 - 11	62	-9	-9	-9	14	6	10 - 11
11 - 12	95	-9	-9	-9	7	6	11 - 12
12 - 13	104	-9	-9	-9	3	6	12 - 13
13 - 14	119	3244	2577	666	0	6	13 - 14
14 - 15	135	3350	2545	804	0	6	14 - 15
15 - 16	108	3689	2789	899	0	6	15 - 16
16 - 17	112	3604	2683	921	0	6	16 - 17
17 - 18	164	3297	2567	730	0	6	17 - 18
18 - 19	85	3562	2715	846	0	6	18 - 19
19 - 20	55	4642	3043	1598	0	6	19 - 20
20 - 21	45	3816	2884	931	0	6	20 - 21
21 22	33	3234	2524	709	0	6	21 - 22
22 - 23	29	3202	2302	899	0	6	22 - 23
23 - 24	28	3159	2228	931	0	5	23 - 24

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JUNE 25 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	1	6	16.98	85	22.5	72.4	0 - 1
1 - 2	1	3	17.41	87	22.5	72.5	1 - 2
2 - 3	0	3	17.54	88	22.4	72.4	2 - 3
3 - 4	0	3	17.85	91	22.2	71.9	3 - 4
4 - 5	0	4	18.06	93	22	71.6	4 - 5
5 - 6	4	13	18.06	93	22	71.6	5 - 6
6 - 7	8	10	18.61	93	22.5	72.5	6 - 7
7 - 8	5	12	19.34	91	23.6	74.4	7 - 8
8 - 9	3	8	20.06	85	25.4	77.7	8 - 9
9 - 10	4	16	20.83	76	28.1	82.6	9 - 10
10 - 11	2	18	21.1	68	30.4	86.7	10 - 11
11 - 12	1	10	22.75	62	33.5	92.4	11 - 12
12 - 13	0	5	22.52	56	35.3	95.5	12 - 13
13 - 14	0	7	22.32	54	35.8	96.5	13 - 14
14 - 15	0	9	21.31	53	35.3	95.5	14 - 15
15 - 16	-9	6	20.37	54	34.1	93.3	15 - 16
16 - 17	-9	3	19.82	54	33.5	92.4	16 - 17
17 - 18	0	2	19.1	54	32.8	91.1	17 - 18
18 - 19	-9	2	18.21	56	31.3	88.3	18 - 19
19 - 20	-9	3	18.17	62	29.3	84.8	19 - 20
20 - 21	-9	4	18.64	70	27.6	81.7	20 - 21
21 - 22	-9	5	19.7	78	26.7	80.1	21 - 22
22 - 23	0	5	19.65	81	25.9	78.6	22 - 23
23 - 24	-9	5	18.98	82	25.1	77.1	23 - 24

PLYMOUTH PARK EXPERIMENT
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JUNE 25 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	2	225	0.2	0.019	7	0 - 1
1 - 2	0	1	225	0.2	0.017	6	1 - 2
2 - 3	0	2	225	0.1	0.018	6	2 - 3
3 - 4	0	2	225	0.1	0.017	6	3 - 4
4 - 5	0	1	225	0.1	0.017	6	4 - 5
5 - 6	0	1	225	0.1	0.014	5	5 - 6
6 - 7	0.1	2	225	0.1	0.02	7	6 - 7
7 - 8	0.2	3	270	0.1	0.019	7	7 - 8
8 - 9	0.4	3	270	0.2	0.019	7	8 - 9
9 - 10	0.3	2	270	0.2	0.021	8	9 - 10
10 - 11	0.9	2	270	0.3	0.024	9	10 - 11
11 - 12	1.1	1	270	0.3	0.025	9	11 - 12
12 - 13	1.2	2	90	0.2	0.028	10	12 - 13
13 - 14	1.2	1	90	0.2	0.034	12	13 - 14
14 - 15	1	2	90	0.3	0.038	14	14 - 15
15 - 16	0.9	4	45	0.3	0.038	14	15 - 16
16 - 17	0.8	5	135	0.2	0.036	13	16 - 17
17 - 18	0.5	5	90	0.2	0.04	15	17 - 18
18 - 19	0.3	3	135	0.1	0.031	11	18 - 19
19 - 20	0.1	4	135	0.1	0.027	10	19 - 20
20 - 21	0	2	135	0	0.02	7	20 - 21
21 - 22	0	2	135	0	0.017	6	21 - 22
22 - 23	0	2	180	0.1	0.013	5	22 - 23
23 - 24	0	1	180	0.1	0.014	5	23 - 24

PLYMOUTH PARK EXPERIMENT
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JUNE 26 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	22	-9	-9	-9	0	5	0 - 1
1 - 2	21	-9	-9	-9	0	5	1 - 2
2 - 3	24	-9	-9	-9	0	6	2 - 3
3 - 4	28	-9	-9	-9	0	6	3 - 4
4 - 5	33	-9	-9	-9	0	5	4 - 5
5 - 6	21	-9	-9	-9	0	5	5 - 6
6 - 7	5	-9	-9	-9	0	5	6 - 7
7 - 8	13	-9	-9	-9	0	6	7 - 8
8 - 9	-9	-9	-9	-9	0	5	8 - 9
9 - 10	12	2577	-9000	-9000	0	5	9 - 10
10 - 11	18	2461	1264	1196	0	5	10 - 11
11 - 12	31	2651	2154	497	0	6	11 - 12
12 - 13	23	2101	1931	169	0	5	12 - 13
13 - 14	28	3181	2260	921	0	5	13 - 14
14 - 15	29	3054	2027	1026	0	5	14 - 15
15 - 16	31	6505	3784	2720	0	6	15 - 16
16 - 17	20	4620	2895	1725	0	6	16 - 17
17 - 18	18	2270	1900	370	0	6	17 - 18
18 - 19	20	1974	1794	179	0	6	18 - 19
19 - 20	22	2005	1783	222	0	5	19 - 20
20 - 21	19	2164	1868	296	0	6	20 - 21
21 - 22	15	1931	1698	232	0	6	21 - 22
22 - 23	10	1868	1646	222	0	6	22 - 23
23 - 24	3	1942	1624	317	0	6	23 - 24

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JUNE 26 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	9	18.98	85	24.4	76	0 - 1
1 - 2	1	8	18.83	86	24.1	75.3	1 - 2
2 - 3	0	3	18.49	87	23.6	74.4	2 - 3
3 - 4	0	3	18.84	89	23.5	74.3	3 - 4
4 - 5	1	3	18.66	91	22.9	73.3	4 - 5
5 - 6	-9	2	18.61	93	22.5	72.5	5 - 6
6 - 7	1	4	19.19	94	22.9	73.1	6 - 7
7 - 8	3	11	20.79	94	24.3	75.7	7 - 8
8 - 9	3	7	18.83	86	24.1	75.3	8 - 9
9 - 10	1	5	21.77	76	28.9	84.1	9 - 10
10 - 11	-9	5	20.81	69	29.9	85.8	10 - 11
11 - 12	-9	-9	19.67	67	29.4	84.9	11 - 12
12 - 13	1	-9	20.24	68	29.6	85.3	12 - 13
13 - 14	2	-9	20.36	67	30	86	13 - 14
14 - 15	2	-9	20.28	66	30.2	86.4	14 - 15
15 - 16	2	3	19.01	66	29	84.2	15 - 16
16 - 17	2	-9	18.08	67	27.8	82.1	16 - 17
17 - 18	2	1	18.11	68	27.6	81.7	17 - 18
18 - 19	2	1	17.78	69	27	80.6	18 - 19
19 - 20	1	1	17.49	71	26.2	79.1	19 - 20
20 - 21	-9	5	17.6	75	25.3	77.6	20 - 21
21 - 22	-9	14	18.09	81	24.4	76	21 - 22
22 - 23	-9	18	18.46	86	23.7	74.7	22 - 23
23 - 24	-9	19	18.73	89	23.4	74.1	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
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JUNE 26 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	1	180	0.3	0.016	5	0 - 1
1 - 2	0	1	180	0.3	0.02	7	1 - 2
2 - 3	0.1	1	180	0.1	0.021	8	2 - 3
3 - 4	0.1	1	180	0.1	0.019	7	3 - 4
4 - 5	0.1	1	180	0.1	0.013	5	4 - 5
5 - 6	0.1	0.5	180	0.1	0.013	5	5 - 6
6 - 7	0.1	0.5	180	0.1	0.016	5	6 - 7
7 - 8	0.2	1	180	0.1	0.017	6	7 - 8
8 - 9	0.5	1	180	0.2	0.018	6	8 - 9
9 - 10	0.7	1	135	0.2	0.02	7	9 - 10
10 - 11	0.7	2	135	0.2	2.20000E-2	8	10 - 11
11 - 12	0.5	2	135	0.2	0.028	10	11 - 12
12 - 13	0.8	4	135	0.1	0.03	11	12 - 13
13 - 14	1.1	5	135	0.1	0.031	11	13 - 14
14 - 15	0.8	5	135	0.1	0.036	13	14 - 15
15 - 16	0.5	6	135	0.1	0.04	15	15 - 16
16 - 17	0.4	5	135	0.1	0.034	12	16 - 17
17 - 18	0.3	5	135	0.1	0.028	10	17 - 18
18 - 19	0.2	4	135	0.1	2.30000E-2	8	18 - 19
19 - 20	0.1	4	90	0.1	0.02	7	19 - 20
20 - 21	0.1	3	90	0.1	0.018	6	20 - 21
21 - 22	0	2	90	0.1	0.017	6	21 - 22
22 - 23	0	2	90	0.2	0.017	6	22 - 23
23 - 24	0	2	90	0.2	0.014	5	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 27 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	7	1974	1698	275	0	6	0 - 1
1 - 2	8	1900	1635	264	11	6	1 - 2
2 - 3	9	1910	1593	317	0	6	2 - 3
3 - 4	10	1953	1762	190	0	6	3 - 4
4 - 5	11	2228	1984	243	0	6	4 - 5
5 - 6	6	2397	1878	518	0	6	5 - 6
6 - 7	-9	2175	1857	317	0	6	6 - 7
7 - 8	12	1974	1783	190	0	6	7 - 8
8 - 9	31	1868	1720	148	0	6	8 - 9
9 - 10	37	1942	1804	137	0	6	9 - 10
10 - 11	25	2048	1878	169	0	6	10 - 11
11 - 12	25	2101	1910	190	0	6	11 - 12
12 - 13	26	2122	1931	190	0	6	12 - 13
13 - 14	32	1974	1815	158	0	6	13 - 14
14 - 15	31	1931	1773	158	0	6	14 - 15
15 - 16	26	2122	1889	232	0	6	15 - 16
16 - 17	26	9977	9977	0	0	6	16 - 17
17 - 18	15	2270	2058	211	0	6	17 - 18
18 - 19	22	2672	2556	116	0	6	18 - 19
19 - 20	29	9998	4874	5123	0	6	19 - 20
20 - 21	20	3011	2514	497	0	6	20 - 21
21 - 22	24	2482	2133	349	0	6	21 - 22
22 - 23	23	2641	2355	285	0	6	22 - 23
23 - 24	28	1953	1741	211	0	6	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 27 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	18	18.77	91	23	73.5	0 - 1
1 - 2	-9	13	18.79	92	22.9	73.1	1 - 2
2 - 3	-9	13	18.79	92	22.9	73.1	2 - 3
3 - 4	-9	9	18.69	93	22.6	72.6	3 - 4
4 - 5	-9	8	18.52	95	22	71.7	4 - 5
5 - 6	-9	15	18.09	97	21.3	70.3	5 - 6
6 - 7	7	21	19.57	98	22.5	72.4	6 - 7
7 - 8	7	18	22.6	93	25.9	78.7	7 - 8
8 - 9	1	1	19.28	79	26	78.8	8 - 9
9 - 10	1	1	18.59	73	26.8	80.2	9 - 10
10 - 11	1	1	18.73	69	27.9	82.3	10 - 11
11 - 12	1	1	18.87	65	29.2	84.5	11 - 12
12 - 13	0	2	18	62	29.2	84.5	12 - 13
13 - 14	1	2	18.4	64	29	84.2	13 - 14
14 - 15	0	-9	19.42	65	29.7	85.4	14 - 15
15 - 16	0	-9	18.62	66	28.6	83.5	15 - 16
16 - 17	-9	1	19.34	65	29.6	85.3	16 - 17
17 - 18	0	1	18.76	64	29.3	84.8	17 - 18
18 - 19	0	1	18.4	64	29	84.2	18 - 19
19 - 20	0	1	16.65	66	26.6	79.9	19 - 20
20 - 21	0	1	16.56	72	25	76.9	20 - 21
21 - 22	-9	7	16.13	79	22.9	73.1	21 - 22
22 - 23	-9	9	17.98	81	24.3	75.8	22 - 23
23 - 24	0	10	18.35	83	24.3	75.7	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 27 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	2	135	0.1	0.013	5	0 - 1
1 - 2	0	2	135	0.1	0.013	5	1 - 2
2 - 3	0	2	135	0	0.013	4	2 - 3
3 - 4	0	1	135	0	0.013	4	3 - 4
4 - 5	0	0.5	135	0.1	0.013	4	4 - 5
5 - 6	0	0.5	135	0.1	0.013	4	5 - 6
6 - 7	0.1	1	135	0.1	0.013	5	6 - 7
7 - 8	0.4	2	135	0.1	0.016	5	7 - 8
8 - 9	0.6	4	135	0.1	0.014	5	8 - 9
9 - 10	0.9	4	135	0.1	0.014	5	9 - 10
10 - 11	1	5	135	0	0.014	5	10 - 11
11 - 12	1.2	4	135	0	0.016	5	11 - 12
12 - 13	1	5	135	0	0.017	6	12 - 13
13 - 14	0.8	7	135	0	0.017	6	13 - 14
14 - 15	1	7	135	0	0.016	5	14 - 15
15 - 16	0.7	8	135	0	0.017	6	15 - 16
16 - 17	0.9	8	135	0.1	0.021	7	16 - 17
17 - 18	0.6	5	135	0.1	0.015	5	17 - 18
18 - 19	0.4	5	135	0.1	0.017	6	18 - 19
19 - 20	0.1	5	135	0.1	2.30000E-2	8	19 - 20
20 - 21	0.1	3	135	0	0.016	5	20 - 21
21 - 22	0.1	2	135	0	0.015	5	21 - 22
22 - 23	0.1	2	135	0	0.013	5	22 - 23
23 - 24	0.1	3	135	0	0.013	5	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 28 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	15	1953	1741	211	0	6	0 - 1
1 - 2	26	1847	1709	137	0	6	1 - 2
2 - 3	14	1783	1603	179	0	6	2 - 3
3 - 4	17	1667	1518	148	0	6	3 - 4
4 - 5	24	1698	1561	137	0	6	4 - 5
5 - 6	28	1720	1561	158	0	6	5 - 6
6 - 7	28	1741	1593	148	0	6	6 - 7
7 - 8	74	1720	1582	137	0	6	7 - 8
8 - 9	42	1720	1582	137	0	-9	8 - 9
9 - 10	78	1825	1656	169	0	-9	9 - 10
10 - 11	23	1836	1656	179	0	-9	10 - 11
11 - 12	26	1804	1646	158	0	-9	11 - 12
12 - 13	29	1762	1656	105	0	0	12 - 13
13 - 14	34	1868	1720	148	0	0	13 - 14
14 - 15	35	1857	1709	148	0	0	14 - 15
15 - 16	28	1847	1667	179	0	0	15 - 16
16 - 17	23	1783	1614	169	0	0	16 - 17
17 - 18	31	1709	1529	179	0	0	17 - 18
18 - 19	31	1815	1656	158	0	0	18 - 19
19 - 20	31	1836	1688	148	0	0	19 - 20
20 - 21	17	1815	1635	179	0	0	20 - 21
21 - 22	29	1878	1709	169	0	0	21 - 22
22 - 23	32	2016	1847	169	0	0	22 - 23
23 - 24	30	2069	1910	158	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 28 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	3	18.28	83	24.2	75.5	0 - 1
1 - 2	-9	4	18.5	84	24.2	75.5	1 - 2
2 - 3	-9	3	18.65	84	24.3	75.8	2 - 3
3 - 4	-9	3	-9	-9	23	73.5	3 - 4
4 - 5	-9	1	-9	-9	22.9	73.1	4 - 5
5 - 6	-9	1	-9	-9	22.7	72.8	5 - 6
6 - 7	-9	1	-9	-9	22.6	72.6	6 - 7
7 - 8	-9	1	-9	-9	22.9	73.1	7 - 8
8 - 9	0	2	-9	-9	23.2	73.8	8 - 9
9 - 10	1	6	-9	-9	23.9	75	9 - 10
10 - 11	1	6	-9	-9	24.2	75.5	10 - 11
11 - 12	0	4	-9	-9	24.8	76.6	11 - 12
12 - 13	0	4	-9	-9	24.6	76.3	12 - 13
13 - 14	-9	1	-9	-9	26.5	79.8	13 - 14
14 - 15	-9	2	20.1	80	26.5	79.8	14 - 15
15 - 16	-9	3	19.11	78	26.1	78.9	15 - 16
16 - 17	-9	4	17.67	75	25.4	77.7	16 - 17
17 - 18	-9	4	18.3	78	25.3	77.6	17 - 18
18 - 19	-9	2	20.45	83	26.2	79.1	18 - 19
19 - 20	-9	3	18.82	81	25.1	77.2	19 - 20
20 - 21	-9	2	17.08	78	24.1	75.3	20 - 21
21 - 22	-9	3	17.6	82	23.7	74.7	21 - 22
22 - 23	-9	4	17.25	82	23.4	74.1	22 - 23
23 - 24	-9	4	16.54	81	22.9	73.1	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 28 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	2	135	0	1.10000E-2	4	0 - 1
1 - 2	0	2	135	0	0.012	4	1 - 2
2 - 3	0	3	135	0	0.012	4	2 - 3
3 - 4	0	3	135	0	0.012	4	3 - 4
4 - 5	0	2	135	0	9.00000E-3	3	4 - 5
5 - 6	0	2	135	0	1.10000E-2	4	5 - 6
6 - 7	0	2	135	0.1	9.00000E-3	3	6 - 7
7 - 8	0.1	3	135	0.1	0.012	4	7 - 8
8 - 9	0.2	2	135	0.1	7.00000E-3	2	8 - 9
9 - 10	0.2	2	135	0.1	9.00000E-3	3	9 - 10
10 - 11	0.3	4	135	0.2	0.008	2	10 - 11
11 - 12	0.5	4	135	0.2	0.005	2	11 - 12
12 - 13	0.7	5	135	0.2	9.00000E-3	3	12 - 13
13 - 14	0.7	6	135	0.2	7.00000E-3	2	13 - 14
14 - 15	0.7	7	135	0	7.00000E-3	2	14 - 15
15 - 16	0.4	5	135	0	7.00000E-3	2	15 - 16
16 - 17	0.3	5	135	0.1	0.008	3	16 - 17
17 - 18	0.3	6	135	0.1	0.008	3	17 - 18
18 - 19	0.3	7	135	0.1	0.008	2	18 - 19
19 - 20	0.2	7	135	0.1	9.00000E-3	3	19 - 20
20 - 21	0.1	6	135	0	9.00000E-3	3	20 - 21
21 - 22	0	6	135	0	0.008	2	21 - 22
22 - 23	0	4	135	0	9.00000E-3	3	22 - 23
23 - 24	0	3	135	0	9.00000E-3	3	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 29 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	30	1910	1720	190	0	0	0 - 1
1 - 2	35	1889	1677	211	0	0	1 - 2
2 - 3	74	1889	1698	190	0	0	2 - 3
3 - 4	44	1931	1720	211	0	0	3 - 4
4 - 5	-9	1857	1646	211	0	0	4 - 5
5 - 6	-9	1847	1635	211	0	0	5 - 6
6 - 7	-9	1878	1667	211	3	0	6 - 7
7 - 8	-9	-9	-9	-9	0	0	7 - 8
8 - 9	-9	-9	-9	-9	-9	0	8 - 9
9 - 10	-9	-9	-9	-9	0	0	9 - 10
10 - 11	-9	-9	-9	-9	0	0	10 - 11
11 - 12	43	1984	1751	232	0	0	11 - 12
12 - 13	51	1942	1730	211	0	0	12 - 13
13 - 14	73	1953	1762	190	0	0	13 - 14
14 - 15	104	1984	1751	232	0	0	14 - 15
15 - 16	42	2027	1762	264	0	0	15 - 16
16 - 17	39	2005	1773	232	0	0	16 - 17
17 - 18	41	1931	1730	201	0	0	17 - 18
18 - 19	38	1984	1720	264	0	0	18 - 19
19 - 20	29	1984	1741	243	0	0	19 - 20
20 - 21	32	1963	1730	232	0	0	20 - 21
21 - 22	32	1984	1730	254	0	0	21 - 22
22 - 23	35	2005	1751	254	-9	0	22 - 23
23 - 24	36	-9	-9	-9	-9	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 29 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	2	16.58	82	22.7	72.8	0 - 1
1 - 2	-9	3	16.48	82	22.6	72.6	1 - 2
2 - 3	-9	3	16.45	83	22.3	72.2	2 - 3
3 - 4	-9	3	16.98	84	22.7	72.8	3 - 4
4 - 5	-9	3	17.18	85	22.7	72.8	4 - 5
5 - 6	-9	1	17.69	87	22.8	73	5 - 6
6 - 7	-9	2	18.49	87	23.6	74.4	6 - 7
7 - 8	-9	1	19.24	87	24.3	75.7	7 - 8
8 - 9	-9	1	20.41	87	25.3	77.6	8 - 9
9 - 10	1	1	20.58	86	25.7	78.2	9 - 10
10 - 11	-9	1	20.1	80	26.5	79.8	10 - 11
11 - 12	-9	1	20.57	78	27.4	81.3	11 - 12
12 - 13	-9	2	20.43	76	27.8	82	12 - 13
13 - 14	-9	1	20.68	74	28.5	83.2	13 - 14
14 - 15	-9	1	19.73	72	28.1	82.6	14 - 15
15 - 16	-9	1	19.55	72	27.9	82.3	15 - 16
16 - 17	-9	1	19.36	72	27.8	82	16 - 17
17 - 18	0	1	18.44	72	26.9	80.4	17 - 18
18 - 19	0	1	18.09	72	26.5	79.8	18 - 19
19 - 20	0	1	16.56	72	25	76.9	19 - 20
20 - 21	0	3	15.63	74	23.4	74.2	20 - 21
21 - 22	0	3	16.25	78	23.2	73.8	21 - 22
22 - 23	0	4	17.08	82	23.2	73.8	22 - 23
23 - 24	0	3	17.29	83	23.2	73.8	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 29 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	4	135	0	7.00000E-3	2	0 - 1
1 - 2	0	3	90	0	9.00000E-3	3	1 - 2
2 - 3	0	3	90	0	0.008	2	2 - 3
3 - 4	0	3	135	0	7.00000E-3	2	3 - 4
4 - 5	0	3	90	0	9.00000E-3	3	4 - 5
5 - 6	0	3	90	0	0.008	3	5 - 6
6 - 7	0.1	3	45	0	7.00000E-3	2	6 - 7
7 - 8	0.2	4	45	0	0.013	5	7 - 8
8 - 9	0.5	4	45	0	0.013	5	8 - 9
9 - 10	0.6	6	45	0	0.013	4	9 - 10
10 - 11	1	6	45	0.1	0.016	5	10 - 11
11 - 12	1.3	6	45	0.1	0.018	6	11 - 12
12 - 13	1.3	6	45	0	2.20000E-2	8	12 - 13
13 - 14	1.3	6	45	0	0.026	9	13 - 14
14 - 15	1.3	5	45	0.1	0.029	11	14 - 15
15 - 16	1.1	5	45	0.1	0.036	13	15 - 16
16 - 17	0.9	5	45	0.1	0.034	12	16 - 17
17 - 18	0.5	5	45	0.1	0.029	11	17 - 18
18 - 19	0.4	5	45	0	0.027	10	18 - 19
19 - 20	0.1	4	45	0	0.029	11	19 - 20
20 - 21	0	4	45	0.1	0.027	10	20 - 21
21 - 22	0	3	45	0.1	0.029	11	21 - 22
22 - 23	0	2	45	0	0.028	10	22 - 23
23 - 24	0	3	45	0	0.029	11	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 30 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	27	-9	-9	-9	0	0	0 - 1
1 - 2	24	-9	-9	-9	0	0	1 - 2
2 - 3	30	-9	-9	-9	0	0	2 - 3
3 - 4	33	-9	-9	-9	0	0	3 - 4
4 - 5	34	-9	-9	-9	0	0	4 - 5
5 - 6	32	-9	-9	-9	0	0	5 - 6
6 - 7	49	-9	-9	-9	0	0	6 - 7
7 - 8	33	2090	1889	201	0	0	7 - 8
8 - 9	29	2133	1942	190	0	0	8 - 9
9 - 10	28	2122	1931	190	0	0	9 - 10
10 - 11	37	2133	1942	190	0	0	10 - 11
11 - 12	40	2196	1963	232	0	0	11 - 12
12 - 13	44	2270	2005	264	0	0	12 - 13
13 - 14	43	2344	1963	381	0	0	13 - 14
14 - 15	44	2281	1942	338	0	0	14 - 15
15 - 16	44	2302	2005	296	0	0	15 - 16
16 - 17	48	2376	2037	338	0	0	16 - 17
17 - 18	48	2376	2069	307	0	0	17 - 18
18 - 19	74	2344	2080	264	0	0	18 - 19
19 - 20	58	2334	2069	264	0	0	19 - 20
20 - 21	53	2408	2175	232	0	0	20 - 21
21 - 22	57	2577	2312	264	0	0	21 - 22
22 - 23	71	2535	2249	285	0	0	22 - 23
23 - 24	77	2588	2344	243	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 30 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	-9	17.08	82	23.2	73.8	0 - 1
1 - 2	-9	-9	16.34	80	22.9	73.1	1 - 2
2 - 3	-9	-9	16.01	80	22.5	72.5	2 - 3
3 - 4	-9	-9	15.69	80	22.2	71.9	3 - 4
4 - 5	-9	-9	15.57	81	21.8	71.2	4 - 5
5 - 6	-9	-9	15.95	81	22.2	72	5 - 6
6 - 7	-9	-9	16.48	82	22.6	72.6	6 - 7
7 - 8	1	2	17.5	82	23.6	74.5	7 - 8
8 - 9	1	2	18.03	82	24.2	75.5	8 - 9
9 - 10	-9	1	18	79	24.8	76.6	9 - 10
10 - 11	-9	-9	17.77	78	24.8	76.6	10 - 11
11 - 12	0	1	18.85	78	25.8	78.5	11 - 12
12 - 13	1	3	17.42	75	25.1	77.2	12 - 13
13 - 14	-9	5	17.47	79	24.3	75.7	13 - 14
14 - 15	-9	5	17.29	83	23.2	73.8	14 - 15
15 - 16	-9	3	19.22	80	25.7	78.3	15 - 16
16 - 17	-9	5	16.79	73	25	76.9	16 - 17
17 - 18	-9	4	16.24	72	24.6	76.3	17 - 18
18 - 19	-9	5	15.83	73	23.9	75	18 - 19
19 - 20	1	5	15.31	75	22.9	73.1	19 - 20
20 - 21	-9	5	15.12	76	22.4	72.3	20 - 21
21 - 22	-9	5	13.57	71	21.7	71.1	21 - 22
22 - 23	-9	6	13.53	73	21.2	70.1	22 - 23
23 - 24	-9	5	13.67	73	21.3	70.4	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JUNE 30 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	3	45	0.1	0.038	14	0 - 1
1 - 2	0	3	45	0.1	0.036	13	1 - 2
2 - 3	0.1	2	45	0.1	0.038	14	2 - 3
3 - 4	0.1	3	45	0.1	4.10000E-2	15	3 - 4
4 - 5	0.1	4	45	0.1	4.40000E-2	16	4 - 5
5 - 6	0.1	4	45	0.1	0.05	18	5 - 6
6 - 7	0.1	4	45	0.1	0.045	17	6 - 7
7 - 8	0.2	5	45	0.1	0.035	13	7 - 8
8 - 9	0.5	6	45	0.1	0.05	18	8 - 9
9 - 10	0.5	5	45	0.1	0.025	9	9 - 10
10 - 11	0.6	6	45	0	0.032	12	10 - 11
11 - 12	0.7	6	45	0	0.04	15	11 - 12
12 - 13	0.6	7	45	0.1	0.045	17	12 - 13
13 - 14	0.4	4	45	0.1	0.052	19	13 - 14
14 - 15	0.3	5	45	0	0.038	14	14 - 15
15 - 16	0.9	6	45	0	0.031	11	15 - 16
16 - 17	0.6	6	45	0.1	0.043	16	16 - 17
17 - 18	0.6	7	45	0.1	4.10000E-2	15	17 - 18
18 - 19	0.3	6	45	0.1	0.045	17	18 - 19
19 - 20	0.1	6	45	0.1	4.60000E-2	17	19 - 20
20 - 21	0	6	45	0	0.043	16	20 - 21
21 - 22	0	3	45	0	0.032	12	21 - 22
22 - 23	0	4	45	0.1	0.036	13	22 - 23
23 - 24	0	4	45	0.1	0.028	10	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 1 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	53	2619	2355	264	0	0	0 - 1
1 - 2	77	2619	2365	254	0	0	1 - 2
2 - 3	51	2630	2344	285	0	0	2 - 3
3 - 4	39	2651	2365	285	0	0	3 - 4
4 - 5	63	2609	2291	317	0	0	4 - 5
5 - 6	43	2641	2312	328	-9	0	5 - 6
6 - 7	42	2609	2281	328	6	0	6 - 7
7 - 8	48	2598	2312	285	9	0	7 - 8
8 - 9	54	2662	2344	317	-9	0	8 - 9
9 - 10	61	2948	2524	423	-9	0	9 - 10
10 - 11	59	2948	2545	402	-9	0	10 - 11
11 - 12	55	2905	2524	381	-9	0	11 - 12
12 - 13	77	-9	-9	-9	171	0	12 - 13
13 - 14	132	-9	-9	-9	0	0	13 - 14
14 - 15	124	-9	-9	-9	-9	0	14 - 15
15 - 16	62	1847	-9000	-9000	0	0	15 - 16
16 - 17	40	1593	-9000	-9000	0	0	16 - 17
17 - 18	35	1614	-9000	-9000	0	0	17 - 18
18 - 19	40	1614	-9000	-9000	0	0	18 - 19
19 - 20	42	1614	-9000	-9000	0	0	19 - 20
20 - 21	37	-9	-9	-9	3	0	20 - 21
21 - 22	17	3657	3096	561	10	0	21 - 22
22 - 23	7	4652	3678	973	0	0	22 - 23
23 - 24	-9	-9	-9	-9	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 1 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	1	1	13.16	72	20.9	69.7	0 - 1
1 - 2	-9	-9	12.89	72	20.6	69	1 - 2
2 - 3	-9	-9	12.76	72	20.4	68.7	2 - 3
3 - 4	-9	-9	12.17	72	19.6	67.3	3 - 4
4 - 5	-9	-9	11.99	73	19.1	66.4	4 - 5
5 - 6	-9	-9	12.01	74	18.9	66	5 - 6
6 - 7	1	8	12.68	75	19.6	67.3	6 - 7
7 - 8	1	8	13.39	73	21	69.8	7 - 8
8 - 9	1	4	13.38	71	21.5	70.6	8 - 9
9 - 10	1	8	13.87	70	22.3	72.2	9 - 10
10 - 11	0	8	14.23	69	23	73.5	10 - 11
11 - 12	0	6	14.63	69	23.5	74.3	11 - 12
12 - 13	1	5	14.77	68	23.9	75.1	12 - 13
13 - 14	0	4	14.93	63	25.5	77.9	13 - 14
14 - 15	-9	3	14.61	60	26	78.8	14 - 15
15 - 16	-9	3	14.48	59	26.1	79	15 - 16
16 - 17	-9	1	14.37	58	26.3	79.3	16 - 17
17 - 18	1	3	14.15	57	26.3	79.4	17 - 18
18 - 19	-9	3	13.91	57	26	78.8	18 - 19
19 - 20	-9	1	13.07	59	24.3	75.7	19 - 20
20 - 21	-9	10	11.99	63	21.6	70.9	20 - 21
21 - 22	-9	27	11.61	71	19	66.3	21 - 22
22 - 23	12	41	11.36	79	16.9	62.3	22 - 23
23 - 24	40	41	11.66	85	16.1	61	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 1 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0	3	90	0	0.019	7	0 - 1
1 - 2	0	4	90	0	0.018	6	1 - 2
2 - 3	0	4	90	0	0.015	5	2 - 3
3 - 4	0	4	180	0	0.013	5	3 - 4
4 - 5	0	3	270	0	0.013	5	4 - 5
5 - 6	0	3	270	0	0.014	5	5 - 6
6 - 7	0.1	4	270	0	0.016	5	6 - 7
7 - 8	0.4	4	270	0	1.10000E-2	4	7 - 8
8 - 9	0.6	5	270	0	1.10000E-2	4	8 - 9
9 - 10	-9	6	315	0	0.012	4	9 - 10
10 - 11	1.1	6	315	0.2	0.014	5	10 - 11
11 - 12	1.3	7	315	0.2	0.019	7	11 - 12
12 - 13	1.3	7	315	0.1	0.028	10	12 - 13
13 - 14	1.4	6	315	0.1	0.019	7	13 - 14
14 - 15	1.3	5	315	0.1	0.018	6	14 - 15
15 - 16	1.2	6	315	0.1	0.017	6	15 - 16
16 - 17	1	6	315	0	0.013	5	16 - 17
17 - 18	0.8	5	315	0	0.012	4	17 - 18
18 - 19	0.4	4	315	0	0.013	5	18 - 19
19 - 20	0.2	4	315	0	0.014	5	19 - 20
20 - 21	0.1	2	270	0.1	0.016	5	20 - 21
21 - 22	0.1	1	180	0.1	0.02	7	21 - 22
22 - 23	0.1	0	180	0.2	0.027	10	22 - 23
23 - 24	0.1	0	180	0.2	0.024	9	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 2 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	-9	-9	-9	-9	9	0	0 - 1
1 - 2	-9	-9	-9	-9	9	0	1 - 2
2 - 3	17	-9	-9	-9	3	0	2 - 3
3 - 4	17	-9	-9	-9	3	0	3 - 4
4 - 5	17	-9	-9	-9	0	0	4 - 5
5 - 6	21	-9	-9	-9	6	0	5 - 6
6 - 7	22	-9	-9	-9	9	0	6 - 7
7 - 8	23	-9	-9	-9	9	0	7 - 8
8 - 9	59	4112	3413	698	9	0	8 - 9
9 - 10	71	3932	3488	444	9	0	9 - 10
10 - 11	101	3985	3530	455	9	0	10 - 11
11 - 12	126	4091	3498	592	4	0	11 - 12
12 - 13	120	4970	3784	1185	1	0	12 - 13
13 - 14	106	3922	3403	518	3	0	13 - 14
14 - 15	111	4070	3382	688	0	0	14 - 15
15 - 16	89	4387	3509	878	0	0	15 - 16
16 - 17	107	3975	3943	31	0	0	16 - 17
17 - 18	95	4038	3361	677	1	0	17 - 18
18 - 19	96	-9	-9	-9	4	0	18 - 19
19 - 20	103	-9	-9	-9	7	0	19 - 20
20 - 21	103	3371	2821	550	7	0	20 - 21
21 - 22	160	-9	-9	-9	7	0	21 - 22
22 - 23	135	-9	-9	-9	3	0	22 - 23
23 - 24	141	3562	2863	698	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 2 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	67	33	11.82	88	15.7	60.3	0 - 1
1 - 2	54	43	12.22	90	15.9	60.6	1 - 2
2 - 3	12	41	12.17	91	15.7	60.2	2 - 3
3 - 4	0	18	12.03	89	15.8	60.5	3 - 4
4 - 5	-9	18	11.66	89	15.3	59.6	4 - 5
5 - 6	1	16	11.9	88	15.8	60.5	5 - 6
6 - 7	2	23	12.6	86	17.2	62.9	6 - 7
7 - 8	5	29	13.92	81	19.9	67.8	7 - 8
8 - 9	-9	4	15.02	74	22.7	72.9	8 - 9
9 - 10	-9	11	15.49	68	24.8	76.6	9 - 10
10 - 11	-9	9	15.37	63	26	78.8	10 - 11
11 - 12	-9	9	16.08	59	28	82.4	11 - 12
12 - 13	-9	6	15.94	55	29.1	84.4	12 - 13
13 - 14	-9	8	16.2	53	30.1	86.2	13 - 14
14 - 15	-9	4	16.4	51	31.1	87.9	14 - 15
15 - 16	-9	5	16.4	51	31.1	87.9	15 - 16
16 - 17	-9	5	16.38	50	31.4	88.5	16 - 17
17 - 18	-9	5	16.41	50	31.4	88.6	17 - 18
18 - 19	-9	6	16.32	50	31.3	88.4	18 - 19
19 - 20	-9	4	15.97	51	30.6	87	19 - 20
20 - 21	-9	5	15.09	57	27.5	81.5	20 - 21
21 - 22	-9	18	12.38	61	22.7	72.9	21 - 22
22 - 23	-9	20	12.68	68	21.3	70.3	22 - 23
23 - 24	-9	16	12.63	72	20.2	68.4	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 2 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	0	45	0.6	0.059	22	0 - 1
1 - 2	0.1	0	45	0.6	0.054	20	1 - 2
2 - 3	0.1	1	0	0.3	0.035	13	2 - 3
3 - 4	0.1	2	0	0.3	2.20000E-2	8	3 - 4
4 - 5	0.1	2	0	0.2	0.026	9	4 - 5
5 - 6	0.1	2	45	0.2	0.029	10	5 - 6
6 - 7	0.2	2	45	0.3	0.04	15	6 - 7
7 - 8	0.4	3	45	0.3	0.043	16	7 - 8
8 - 9	0.7	7	0	0.2	0.045	17	8 - 9
9 - 10	1	6	0	0.2	0.031	11	9 - 10
10 - 11	1.2	6	0	0.2	0.035	13	10 - 11
11 - 12	1.3	5	0	0.2	0.035	13	11 - 12
12 - 13	1.3	5	0	0.3	0.034	12	12 - 13
13 - 14	1.4	5	0	0.3	0.031	11	13 - 14
14 - 15	1.2	5	45	0.2	0.026	9	14 - 15
15 - 16	1.2	4	45	0.2	0.025	9	15 - 16
16 - 17	1	4	45	0.2	0.026	9	16 - 17
17 - 18	0.8	4	45	0.2	0.03	11	17 - 18
18 - 19	0.5	3	45	0.2	0.025	9	18 - 19
19 - 20	0.2	2	45	0.2	0.027	10	19 - 20
20 - 21	0.1	2	45	0.2	0.031	11	20 - 21
21 - 22	0.1	1	90	0.2	0.035	13	21 - 22
22 - 23	0.1	2	90	0.3	0.04	15	22 - 23
23 - 24	0.1	0	90	0.3	[illegible]	15	[illegible]

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 3 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	94	-9	-9	-9	0	0	0 - 1
1 - 2	80	3816	3138	677	0	0	1 - 2
2 - 3	60	-9	-9	-9	18	0	2 - 3
3 - 4	53	-9	-9	-9	66	0	3 - 4
4 - 5	56	-9	-9	-9	15	0	4 - 5
5 - 6	48	4197	3117	1079	59	0	5 - 6
6 - 7	43	-9	-9	-9	45	0	6 - 7
7 - 8	37	3668	2842	825	4	0	7 - 8
8 - 9	49	3964	3032	931	9	0	8 - 9
9 - 10	65	4874	3318	1556	10	0	9 - 10
10 - 11	97	4197	2747	1450	11	0	10 - 11
11 - 12	137	3911	3032	878	18	0	11 - 12
12 - 13	143	3488	2969	518	11	0	12 - 13
13 - 14	149	-9	-9	-9	11	0	13 - 14
14 - 15	148	3826	2990	836	10	0	14 - 15
15 - 16	150	-9	-9	-9	10	0	15 - 16
16 - 17	119	-9	-9	-9	10	0	16 - 17
17 - 18	115	-9	-9	-9	13	0	17 - 18
18 - 19	119	-9	-9	-9	13	0	18 - 19
19 - 20	-9	5679	4271	1408	17	0	19 - 20
20 - 21	82	4462	3805	656	18	0	20 - 21
21 - 22	55	3509	2905	603	32	0	21 - 22
22 - 23	63	-9	-9	-9	0	0	22 - 23
23 - 24	65	-9	-9	-9	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 3 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	0	17	13.11	79	19.3	66.7	0 - 1
1 - 2	0	16	13.5	81	19.3	66.8	1 - 2
2 - 3	0	15	13.92	81	19.9	67.8	2 - 3
3 - 4	1	16	13.92	81	19.9	67.8	3 - 4
4 - 5	0	13	13.64	81	19.5	67.1	4 - 5
5 - 6	-9	18	13.19	80	19.2	66.5	5 - 6
6 - 7	0	22	13.22	81	19	66.2	6 - 7
7 - 8	1	22	14.06	81	20	68.1	7 - 8
8 - 9	1	14	15.85	80	22.3	72.2	8 - 9
9 - 10	1	23	17.25	75	25	76.9	9 - 10
10 - 11	0	28	18.55	69	27.8	82	10 - 11
11 - 12	0	12	20.94	66	30.8	87.5	11 - 12
12 - 13	-9	4	20.98	61	32.3	90.2	12 - 13
13 - 14	-9	5	21.28	58	33.5	92.4	13 - 14
14 - 15	-9	5	20.55	56	33.5	92.4	14 - 15
15 - 16	0	5	21.06	55	34.3	93.8	15 - 16
16 - 17	0	5	20.75	55	34.1	93.3	16 - 17
17 - 18	1	11	20	55	33.4	92.1	17 - 18
18 - 19	0	9	19.62	56	32.7	90.8	18 - 19
19 - 20	1	11	18.06	58	30.5	86.8	19 - 20
20 - 21	1	23	18.13	59	30.2	86.4	20 - 21
21 - 22	1	40	17.94	64	29.2	81	21 - 22
22 - 23	1	19	17.4	66	28.6	83.5	22 - 23
23 - 24	0	7	17.38	69	28.1	82.6	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 3 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	1	180	0.2	0.045	17	0 - 1
1 - 2	0.1	2	180	0.2	0.05	19	1 - 2
2 - 3	0.1	3	180	0.2	0.047	17	2 - 3
3 - 4	0.1	3	225	0.2	0.052	19	3 - 4
4 - 5	0.1	3	225	0.3	0.059	22	4 - 5
5 - 6	0.1	2	225	0.3	0.062	23	5 - 6
6 - 7	0.1	2	225	0.4	0.05	18	6 - 7
7 - 8	0.2	2	225	0.4	6.50000E-2	24	7 - 8
8 - 9	0.4	4	225	0.3	0.062	23	8 - 9
9 - 10	0.5	4	225	0.3	0.068	25	9 - 10
10 - 11	0.9	4	270	0.3	5.30000E-2	20	10 - 11
11 - 12	-9	4	315	0.3	0.124	47	11 - 12
12 - 13	-9	6	315	0.2	0.108	41	12 - 13
13 - 14	-9	6	315	0.2	0.101	38	13 - 14
14 - 15	1.2	5	315	0.2	0.126	47	14 - 15
15 - 16	1.1	4	315	0.2	0.14	53	15 - 16
16 - 17	0.8	4	315	0.2	0.157	59	16 - 17
17 - 18	0.6	6	315	0.2	0.016	6	17 - 18
18 - 19	0.5	5	315	0.4	0.173	65	18 - 19
19 - 20	0.2	3	315	0.4	0.189	71	19 - 20
20 - 21	0.1	2	315	0.4	0.203	76	20 - 21
21 - 22	0.1	2	315	0.4	0.216	82	21 - 22
22 - 23	0.1	6	0	0	8.80000E-2	33	22 - 23
23 - 24	0.1	5	45	0	0.025	9	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 4 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	54	-9	-9	-9	0	0	0 - 1
1 - 2	54	-9	-9	-9	0	0	1 - 2
2 - 3	58	-9	-9	-9	0	0	2 - 3
3 - 4	63	-9	-9	-9	0	0	3 - 4
4 - 5	61	-9	-9	-9	0	0	4 - 5
5 - 6	58	-9	-9	-9	0	0	5 - 6
6 - 7	39	-9	-9	-9	0	0	6 - 7
7 - 8	43	-9	-9	-9	0	0	7 - 8
8 - 9	68	-9	-9	-9	1	0	8 - 9
9 - 10	88	-9	-9	-9	0	0	9 - 10
10 - 11	91	-9	-9	-9	0	0	10 - 11
11 - 12	99	-9	-9	-9	0	0	11 - 12
12 - 13	103	-9	-9	-9	0	0	12 - 13
13 - 14	86	2281	2005	275	0	0	13 - 14
14 - 15	81	2249	1984	264	0	0	14 - 15
15 - 16	80	2302	1963	338	0	0	15 - 16
16 - 17	58	-9	-9	-9	0	0	16 - 17
17 - 18	57	-9	-9	-9	0	0	17 - 18
18 - 19	79	-9	-9	-9	0	0	18 - 19
19 - 20	71	-9	-9	-9	0	0	19 - 20
20 - 21	68	-9	-9	-9	0	0	20 - 21
21 - 22	80	-9	-9	-9	0	0	21 - 22
22 - 23	72	-9	-9	-9	0	0	22 - 23
23 - 24	55	-9	-9	-9	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
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TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	5	15.57	74	23.4	74.1	0 - 1
1 - 2	-9	8	15.21	76	22.5	72.5	1 - 2
2 - 3	0	8	16.25	78	23.2	73.8	2 - 3
3 - 4	-9	2	15.77	78	22.7	72.8	3 - 4
4 - 5	-9	1	15.41	81	21.6	70.9	4 - 5
5 - 6	0	3	15.64	83	21.5	70.6	5 - 6
6 - 7	1	13	16.18	85	21.6	70.9	6 - 7
7 - 8	3	24	16.91	84	22.6	72.7	7 - 8
8 - 9	1	9	20.01	82	26	78.8	8 - 9
9 - 10	1	11	19.21	75	26.9	80.4	9 - 10
10 - 11	0	9	20.39	72	28.7	83.7	10 - 11
11 - 12	2	9	20.03	69	29.2	84.5	11 - 12
12 - 13	0	7	21.01	69	30	86.1	12 - 13
13 - 14	-9	4	21.98	69	30.9	87.6	13 - 14
14 - 15	-9	1	21.01	69	30	86.1	14 - 15
15 - 16	0	2	17.34	69	26.5	79.8	15 - 16
16 - 17	1	16	17.41	87	22.5	72.5	16 - 17
17 - 18	1	18	17.44	88	22.3	72.2	17 - 18
18 - 19	0	14	17.01	89	21.7	71.1	18 - 19
19 - 20	0	10	17	94	20.8	69.4	19 - 20
20 - 21	0	9	16.66	94	20.4	68.7	20 - 21
21 - 22	0	15	16.66	94	20.4	68.7	21 - 22
22 - 23	1	25	17.01	96	20.4	68.7	22 - 23
23 - 24	0	30	17.19	96	20.6	69	23 - 24

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TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	3	90	0	2.30000E-2	8	0 - 1
1 - 2	0.1	3	135	0	0.021	8	1 - 2
2 - 3	0.2	4	135	0.1	0.02	7	2 - 3
3 - 4	0.1	4	90	0.1	0.029	11	3 - 4
4 - 5	0.1	1	0	0	0.027	10	4 - 5
5 - 6	0.1	1	45	0	0.028	10	5 - 6
6 - 7	0.2	1	45	0.3	0.034	12	6 - 7
7 - 8	0.4	1	45	0.3	0.042	15	7 - 8
8 - 9	0.6	1	45	0.1	0.036	13	8 - 9
9 - 10	0.6	2	45	0.1	0.04	15	9 - 10
10 - 11	0.9	2	45	0.2	4.10000E-2	15	10 - 11
11 - 12	0.7	3	45	0.2	0.045	17	11 - 12
12 - 13	0.9	4	90	0.1	0.05	18	12 - 13
13 - 14	1.1	4	90	0.1	0.059	22	13 - 14
14 - 15	0.8	4	90	0.1	0.047	17	14 - 15
15 - 16	0.5	3	135	0.1	0.052	19	15 - 16
16 - 17	0.2	4	135	0.1	0.034	12	16 - 17
17 - 18	0.1	1	45	0.1	0.064	24	17 - 18
18 - 19	0.1	2	135	0.1	0.074	28	18 - 19
19 - 20	0.1	3	135	0.1	6.30000E-2	23	19 - 20
20 - 21	0.1	3	135	0.1	0.059	22	20 - 21
21 - 22	0.1	1	135	0.1	0.064	24	21 - 22
22 - 23	0.1	0.5	135	0.2	0.072	27	22 - 23
23 - 24	0.1	0.5	135	0.2	0.079	29	23 - 24

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TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	-9	-9	-9	-9	3	0	0 - 1
1 - 2	-9	-9	-9	-9	4	0	1 - 2
2 - 3	-9	-9	-9	-9	0	0	2 - 3
3 - 4	-9	-9	-9	-9	7	0	3 - 4
4 - 5	-9	-9	-9	-9	0	0	4 - 5
5 - 6	-9	-9	-9	-9	0	0	5 - 6
6 - 7	-9	-9	-9	-9	0	0	6 - 7
7 - 8	-9	-9	-9	-9	0	0	7 - 8
8 - 9	-9	-9	-9	-9	0	0	8 - 9
9 - 10	-9	-9	-9	-9	0	0	9 - 10
10 - 11	-9	-9	-9	-9	0	0	10 - 11
11 - 12	-9	-9	-9	-9	0	0	11 - 12
12 - 13	72	2619	2376	243	0	0	12 - 13
13 - 14	64	2609	2334	275	0	0	13 - 14
14 - 15	68	2641	2185	455	0	0	14 - 15
15 - 16	59	2598	2238	359	0	0	15 - 16
16 - 17	88	2492	2175	317	0	0	16 - 17
17 - 18	77	2461	2133	328	0	0	17 - 18
18 - 19	91	2450	2122	328	0	0	18 - 19
19 - 20	69	2482	2228	254	0	0	19 - 20
20 - 21	71	2471	2101	370	0	0	20 - 21
21 - 22	41	2736	2249	486	0	0	21 - 22
22 - 23	28	3276	2514	762	0	0	22 - 23
23 - 24	39	3689	3054	635	0	0	23 - 24

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TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	0	29	17.55	97	20.8	69.4	0 - 1
1 - 2	1	50	17.55	97	20.8	69.4	1 - 2
2 - 3	-9	43	17.55	97	20.8	69.4	2 - 3
3 - 4	-9	35	17.37	97	20.6	69	3 - 4
4 - 5	-9	10	16.91	97	20.1	68.2	4 - 5
5 - 6	-9	2	16.67	97	19.9	67.8	5 - 6
6 - 7	-9	-9	16	97	19.2	66.5	6 - 7
7 - 8	-9	-9	16.16	98	19.2	66.5	7 - 8
8 - 9	-9	1	17.01	99	19.9	67.8	8 - 9
9 - 10	-9	3	17.91	98	20.9	69.7	9 - 10
10 - 11	-9	3	17.89	94	21.6	70.9	10 - 11
11 - 12	-9	-9	18.64	86	23.9	75	11 - 12
12 - 13	-9	-9	19.9	84	25.5	77.9	12 - 13
13 - 14	0	9	17.36	74	25.3	77.6	13 - 14
14 - 15	-9	4	18.27	72	26.7	80.1	14 - 15
15 - 16	-9	2	19.56	70	28.5	83.2	15 - 16
16 - 17	-9	3	18.34	65	28.6	83.5	16 - 17
17 - 18	-9	3	17.71	64	28.3	82.9	17 - 18
18 - 19	-9	4	17.48	65	27.8	82	18 - 19
19 - 20	-9	7	16.1	66	26	78.8	19 - 20
20 - 21	0	9	15.03	70	23.7	74.7	20 - 21
21 - 22	-9	23	16.01	80	22.5	72.5	21 - 22
22 - 23	0	28	16.24	88	21.1	70	22 - 23
23 - 24	0	20	16.3	92	20.4	68.7	23 - 24

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JULY 5 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	0	360	0.3	0.09	34	0 - 1
1 - 2	0.1	0	360	0.3	0.101	38	1 - 2
2 - 3	0.1	0	360	0.3	0.101	38	2 - 3
3 - 4	0.1	1	135	0.3	0.11	41	3 - 4
4 - 5	0.1	3	135	0.1	0.081	30	4 - 5
5 - 6	0	4	225	0.1	0.036	13	5 - 6
6 - 7	0	3	0	0.1	0.04	15	6 - 7
7 - 8	0	2	0	0.1	0.043	16	7 - 8
8 - 9	0.1	1	135	0.1	0.04	15	8 - 9
9 - 10	0.2	1	135	0.1	0.036	13	9 - 10
10 - 11	0.2	4	135	0.1	0.027	10	10 - 11
11 - 12	0.6	4	135	0.1	0.029	11	11 - 12
12 - 13	0.6	4	90	0.1	0.028	10	12 - 13
13 - 14	0.8	3	0	0.1	0.034	12	13 - 14
14 - 15	1	4	45	0.1	0.048	18	14 - 15
15 - 16	1.2	3	0	0.1	0.045	17	15 - 16
16 - 17	0.9	4	0	0.1	0.038	14	16 - 17
17 - 18	0.6	3	0	0.1	0.04	15	17 - 18
18 - 19	0.5	3	45	0.1	0.038	14	18 - 19
19 - 20	0.3	3	45	0.1	0.034	12	19 - 20
20 - 21	0.1	2	45	0.1	0.047	17	20 - 21
21 - 22	0.1	1	45	0.1	0.05	19	21 - 22
22 - 23	0.1	0	90	0.1	0.061	23	22 - 23
23 - 24	0.1	0	90	0.1	0.061	23	23 - 24

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TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	8	3445	2747	698	6	0	0 - 1
1 - 2	3	3615	2852	762	6	0	1 - 2
2 - 3	-9	3795	3054	741	7	0	2 - 3
3 - 4	-9	3932	3244	688	7	0	3 - 4
4 - 5	15	3191	2694	497	7	0	4 - 5
5 - 6	20	2937	2492	444	9	0	5 - 6
6 - 7	.26	2927	2577	349	4	0	6 - 7
7 - 8	23	2916	2514	402	7	0	7 - 8
8 - 9	44	2821	2408	412	22	0	8 - 9
9 - 10	75	2979	2482	497	7	0	9 - 10
10 - 11	123	2874	2524	349	4	0	10 - 11
11 - 12	201	2863	2471	391	4	0	11 - 12
12 - 13	160	2736	2376	359	0	0	12 - 13
13 - 14	149	2884	2418	465	13	0	13 - 14
14 - 15	160	2694	2312	381	6	0	14 - 15
15 - 16	134	2641	2323	317	11	0	15 - 16
16 - 17	134	2630	2270	359	0	0	16 - 17
17 - 18	61	2672	2270	402	0	0	17 - 18
18 - 19	57	2810	2355	455	0	0	18 - 19
19 - 20	81	3054	2556	497	0	0	19 - 20
20 - 21	63	2810	2387	423	0	0	20 - 21
21 - 22	19	2683	2228	455	0	0	21 - 22
22 - 23	47	2694	2270	423	9	0	22 - 23
23 - 24	49	2715	2302	412	0	0	23 - 24

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TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	4	24	16.26	95	19.8	67.6	0 - 1
1 - 2	5	38	16.16	96	19.5	67.1	1 - 2
2 - 3	25	38	16.26	98	19.3	66.7	2 - 3
3 - 4	24	36	16.33	98	19.3	66.8	3 - 4
4 - 5	0	23	16.16	98	19.2	66.5	4 - 5
5 - 6	0	14	15.83	98	18.8	65.9	5 - 6
6 - 7	1	14	15.67	98	18.6	65.6	6 - 7
7 - 8	2	13	17.37	98	20.4	68.7	7 - 8
8 - 9	2	8	22.97	96	25.7	78.2	8 - 9
9 - 10	1	14	20.14	85	25.5	77.9	9 - 10
10 - 11	1	6	19.59	75	27.2	81	10 - 11
11 - 12	0	3	20.13	70	29	84.2	11 - 12
12 - 13	-9	1	19.98	65	30.2	86.4	12 - 13
13 - 14	-9	1	19.47	61	30.9	87.6	13 - 14
14 - 15	-9	1	19.79	62	30.9	87.6	14 - 15
15 - 16	-9	1	20.48	61	31.9	89.3	15 - 16
16 - 17	-9	1	20.07	60	31.8	89.2	16 - 17
17 - 18	-9	-9	19.76	61	31.2	88.2	17 - 18
18 - 19	-9	-9	18.8	62	30	85.9	18 - 19
19 - 20	-9	-9	17.94	63	28.8	83.9	19 - 20
20 - 21	-9	1	17.41	66	27.4	81.3	20 - 21
21 - 22	-9	5	18.23	74	26.2	79.1	21 - 22
22 - 23	-9	8	17.77	78	24.8	76.6	22 - 23
23 - 24	-9	4	17.77	78	24.8	76.6	23 - 24

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TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	0	360	0.2	7.30000E-2	27	0 - 1
1 - 2	0.1	0	360	0.2	0.074	28	1 - 2
2 - 3	0.1	0	360	0.3	0.074	28	2 - 3
3 - 4	0.1	0	360	0.3	0.081	30	3 - 4
4 - 5	0.2	0	360	0.2	0.069	26	4 - 5
5 - 6	0.1	0	360	0.2	0.079	29	5 - 6
6 - 7	0.1	0	360	0.2	0.055	21	6 - 7
7 - 8	0.4	1	90	0.2	0.056	21	7 - 8
8 - 9	0.6	2	90	0.2	0.061	23	8 - 9
9 - 10	0.8	3	135	0.2	0.07	26	9 - 10
10 - 11	1.1	3	225	0.1	0.067	25	10 - 11
11 - 12	1.2	4	270	0.	6.30000E-2	23	11 - 12
12 - 13	1.2	3	315	0.1	0.055	20	12 - 13
13 - 14	0.5	4	0	0.1	0.055	20	13 - 14
14 - 15	0.8	4	315	0.1	5.30000E-2	20	14 - 15
15 - 16	0.8	5	270	0.1	0.054	20	15 - 16
16 - 17	0.7	5	225	0.1	0.054	20	16 - 17
17 - 18	0.6	5	225	0.1	0.05	18	17 - 18
18 - 19	0.5	6	225	0.1	0.054	20	18 - 19
19 - 20	0.2	3	180	0.1	5.30000E-2	20	19 - 20
20 - 21	0.2	2	180	0.1	0.052	19	20 - 21
21 - 22	0.1	3	180	0.1	0.05	19	21 - 22
22 - 23	0.1	4	180	0.1	5.30000E-2	20	22 - 23
23 - 24	0.1	3	180	0.1	5.30000E-2	20	23 - 24

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TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	57	2524	2228	296	7	0	0 - 1
1 - 2	48	2524	2154	370	11	0	1 - 2
2 - 3	42	2387	2101	285	3	0	2 - 3
3 - 4	46	-9	-9	-9	0	0	3 - 4
4 - 5	35	-9	-9	-9	0	0	4 - 5
5 - 6	44	-9	-9	-9	0	0	5 - 6
6 - 7	42	-9	-9	-9	0	0	6 - 7
7 - 8	29	-9	-9	-9	0	0	7 - 8
8 - 9	38	-9	-9	-9	0	0	8 - 9
9 - 10	31	-9	-9	-9	0	0	9 - 10
10 - 11	60	-9	-9	-9	0	0	10 - 11
11 - 12	73	-9	-9	-9	0	0	11 - 12
12 - 13	70	-9	-9	-9	0	0	12 - 13
13 - 14	63	-9	-9	-9	0	0	13 - 14
14 - 15	73	-9	-9	-9	0	0	14 - 15
15 - 16	60	-9	-9	-9	0	0	15 - 16
16 - 17	58	-9	-9	-9	27	0	16 - 17
17 - 18	84	-9	-9	-9	7	0	17 - 18
18 - 19	62	-9	-9	-9	0	0	18 - 19
19 - 20	53	-9	-9	-9	0	0	19 - 20
20 - 21	33	-9	-9	-9	0	0	20 - 21
21 - 22	2	-9	-9	-9	0	0	21 - 22
22 - 23	1	-9	-9	-9	0	0	22 - 23
23 - 24	-9	-9	-9	-9	0	0	23 - 24

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TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	6	16.02	78	23	73.3	0 - 1
1 - 2	-9	7	15.26	77	22.3	72.2	1 - 2
2 - 3	-9	8	15.35	81	21.6	70.8	2 - 3
3 - 4	-9	1.	15.81	86	21	69.9	3 - 4
4 - 5	-9	1	16.48	88	21.3	70.4	4 - 5
5 - 6	-9	1	16.61	88	21.5	70.7	5 - 6
6 - 7	-9	5	16.92	88	21.8	71.2	6 - 7
7 - 8	1	15	17.41	87	22.5	72.5	7 - 8
8 - 9	2	10	18.12	87	23.2	73.8	8 - 9
9 - 10	3	17	18.65	89	23.3	74	9 - 10
10 - 11	1	3	17.54	96	20.9	69.7	10 - 11
11 - 12	0	6	18.65	98	21.6	70.9	11 - 12
12 - 13	-9	3	20.21	98	23	73.5	12 - 13
13 - 14	-9	2	22.31	97	25	76.9	13 - 14
14 - 15	-9	2	22.18	90	26.2	79.1	14 - 15
15 - 16	0	2	22.11	88	26.5	79.8	15 - 16
16 - 17	0	3	22.11	88	26.5	79.8	16 - 17
17 - 18	1	5	24.58	85	29.1	84.4	17 - 18
18 - 19	1	3	21.03	76	28.3	82.9	18 - 19
19 - 20	1	4	19.66	76	27.1	80.7	19 - 20
20 - 21	1	15	18.77	80	25.3	77.6	20 - 21
21 - 22	3	51	18.5	82	24.6	76.3	21 - 22
22 - 23	14	41	18.86	87	23.9	75	22 - 23
23 - 24	5	34	19.19	94	22.9	73.1	23 - 24

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JULY 7 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.1	2	225	0.1	0.043	16	0 - 1
1 - 2	0.1	1	225	0.1	0.045	17	1 - 2
2 - 3	0.1	2	270	0.1	0.045	17	2 - 3
3 - 4	0.1	1,	270	0.1	0.05	18	3 - 4
4 - 5	0.1	2	270	0.1	0.048	18	4 - 5
5 - 6	0.1	1	180	0.1	0.045	17	5 - 6
6 - 7	0.2	1	180	0.1	0.045	17	6 - 7
7 - 8	0.2	2	180	0.1	0.055	21	7 - 8
8 - 9	0.2	3	180	0.3	0.05	18	8 - 9
9 - 10	0.2	3	135	0.3	0.059	22	9 - 10
10 - 11	0.3	6	135	0.1	0.031	11	10 - 11
11 - 12	0.3	2	135	0.1	0.029	11	11 - 12
12 - 13	0.6	4	135	0.1	2.20000E-2	8	12 - 13
13 - 14	0.9	4	180	0.1	0.025	9	13 - 14
14 - 15	0.6	3	135	0.1	0.028	10	14 - 15
15 - 16	0.6	3	180	0.1	0.029	11	15 - 16
16 - 17	0.5	3	180	0.2	0.028	10	16 - 17
17 - 18	0.5	2	405	0.2	0.031	11	17 - 18
18 - 19	0.4	2	405	0	0.026	9	18 - 19
19 - 20	0.2	1	405	0	0.026	9	19 - 20
20 - 21	0.2	1	405	0.2	0.03	11	20 - 21
21 - 22	0.1	1	405	0.2	0.031	11	21 - 22
22 - 23	0.1	0	405	0.2	0.034	12	22 - 23
23 - 24	0.1	0	405	0.2	0.032	12	23 - 24

PLYMOUTH PARK EXPERIMENT
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JULY 8 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	4	-9	-9	-9	4	0	0 - 1
1 - 2	4	-9	-9	-9	7	0	1 - 2
2 - 3	6	-9	-9	-9	4	0	2 - 3
3 - 4	22	-9	-9	-9	0	0	3 - 4
4 - 5	8	-9	-9	-9	0	0	4 - 5
5 - 6	16	-9	-9	-9	0	0	5 - 6
6 - 7	6	-9	-9	-9	0	0	6 - 7
7 - 8	11	-9	-9	-9	0	0	7 - 8
8 - 9	20	-9	-9	-9	0	0	8 - 9
9 - 10	53	-9	-9	-9	0	0	9 - 10
10 - 11	90	-9	-9	-9	0	0	10 - 11
11 - 12	107	-9	-9	-9	0	0	11 - 12
12 - 13	71	2514	2048	465	70	0	12 - 13
13 - 14	63	2503	2323	179	3	0	13 - 14
14 - 15	97	2514	2238	275	4	0	14 - 15
15 - 16	48	1857	1667	190	177	0	15 - 16
16 - 17	129	-9	-9	-9	0	0	16 - 17
17 - 18	45	-9	-9	-9	0	0	17 - 18
18 - 19	36	-9	-9	-9	0	0	18 - 19
19 - 20	34	-9	-9	-9	0	0	19 - 20
20 - 21	25	-9	-9	-9	0	0	20 - 21
21 - 22	18	-9	-9	-9	0	0	21 - 22
22 - 23	-9	-9	-9	-9	0	0	22 - 23
23 - 24	12	2492	1953	539	0	0	23 - 24

PLYMOUTH PARK EXPERIMENT
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JULY 8 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	1	24	19.3	98	22.2	72	0 - 1
1 - 2	1	24	19.22	98	22.2	71.9	1 - 2
2 - 3	0	16	18.92	98	21.9	71.4	2 - 3
3 - 4	0	10	18.84	98	21.8	71.2	3 - 4
4 - 5	1	19	18.65	98	21.6	70.9	4 - 5
5 - 6	0	9	18.95	98	21.9	71.4	5 - 6
6 - 7	0	17	19.3	98	22.2	72	6 - 7
7 - 8	1	18	22.1	98	24.6	76.3	7 - 8
8 - 9	2	15	23.85	94	26.7	80.1	8 - 9
9 - 10	1	13	22.57	80	28.6	83.5	9 - 10
10 - 11	0	14	21.64	73	29.5	85.2	10 - 11
11 - 12	0	13	21.43	70	30.1	86.3	11 - 12
12 - 13	1	12	21.31	70	30	86.1	12 - 13
13 - 14	2	13	21.09	71	29.6	85.2	13 - 14
14 - 15	0	5	18.77	75	26.5	79.6	14 - 15
15 - 16	0	3	18.63	95	22.2	71.9	15 - 16
16 - 17	1	5	22.1	97	24.8	76.6	16 - 17
17 - 18	1	10	21.75	90	25.8	78.5	17 - 18
18 - 19	0	5	19.52	84	25.1	77.2	18 - 19
19 - 20	1	4	21.12	90	25.3	77.6	19 - 20
20 - 21	0	7	20.93	91	25	76.9	20 - 21
21 - 22	0	16	20.34	92	24.3	75.7	21 - 22
22 - 23	12	33	20.61	96	23.7	74.7	22 - 23
23 - 24	0	29	20.96	99	23.5	74.3	23 - 24

PLYMOUTH PARK EXPERIMENT
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JULY 8 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.2	1	405	0.2	4.10000E-2	15	0 - 1
1 - 2	0.2	1	405	0.2	0.034	12	1 - 2
2 - 3	0.1	1	405	0.3	0.03	11	2 - 3
3 - 4	0.2	1	405	0.3	0.034	12	3 - 4
4 - 5	0.2	1	405	0.2	0.029	11	4 - 5
5 - 6	0.2	2	405	0.2	0.031	11	5 - 6
6 - 7	0.2	1	405	0.3	0.034	12	6 - 7
7 - 8	0.3	1	405	0.3	0.04	15	7 - 8
8 - 9	0.7	1	405	0.2	0.046	18	8 - 9
9 - 10	0.9	1	405	0.2	0.04	15	9 - 10
10 - 11	0.9	2	405	0.3	0.052	19	10 - 11
11 - 12	0.7	2	405	0.3	6.30000E-2	23	11 - 12
12 - 13	0.8	3	135	0.1	0.068	25	12 - 13
13 - 14	0.8	4	90	0.1	6.30000E-2	23	13 - 14
14 - 15	0.5	5	90	0.1	0.034	12	14 - 15
15 - 16	0.2	6	45	0.1	0.031	11	15 - 16
16 - 17	0.8	3	90	0.1	0.025	9	16 - 17
17 - 18	0.8	3	135	0.1	2.30000E-2	8	17 - 18
18 - 19	0.2	4	180	0	0.034	12	18 - 19
19 - 20	0.2	2	180	0	0.04	15	19 - 20
20 - 21	0.2	0	360	0.3	0.045	17	20 - 21
21 - 22	0.2	0	360	0.3	0.047	17	21 - 22
22 - 23	0.2	1	360	0.2	4.60000E-2	17	22 - 23
23 - 24	0.2	1	360	0.2	0.045	17	23 - 24

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JULY 9 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	26	3826	3392	434	0	0	0 - 1
1 - 2	32	4335	4080	254	0	0	1 - 2
2 - 3	35	2567	2238	328	0	0	2 - 3
3 - 4	26	2567	2334	232	1	0	3 - 4
4 - 5	22	2312	2005	307	1	0	4 - 5
5 - 6	22	2387	2048	338	4	0	5 - 6
6 - 7	20	2312	2037	275	1	0	6 - 7
7 - 8	38	2281	1910	370	6	0	7 - 8
8 - 9	28	2365	1804	561	51	0	8 - 9
9 - 10	18	2641	1889	751	77	0	9 - 10
10 - 11	36	2376	1910	465	47	0	10 - 11
11 - 12	48	2958	2567	391	78	0	11 - 12
12 - 13	61	2704	2312	391	0	0	12 - 13
13 - 14	64	2588	2228	359	4	0	13 - 14
14 - 15	64	2429	2058	370	4	0	14 - 15
15 - 16	69	2312	1931	381	14	0	15 - 16
16 - 17	64	2238	1794	444	9	0	16 - 17
17 - 18	61	2196	1794	402	7	0	17 - 18
18 - 19	44	2482	1889	592	30	0	18 - 19
19 - 20	26	2492	1931	561	0	0	19 - 20
20 - 21	23	2535	1868	666	0	0	20 - 21
21 - 22	28	2238	1825	412	0	0	21 - 22
22 - 23	35	2365	1942	423	0	0	22 - 23
23 - 24	63	2545	2122	423	4	0	23 - 24

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JULY 9 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	1	18	20.09	98	22.9	73.3	0 - 1
1 - 2	0	7	19.81	98	22.7	72.8	1 - 2
2 - 3	-9	3	20.21	98	23	73.5	2 - 3
3 - 4	-9	2	20.13	98	23	73.3	3 - 4
4 - 5	-9	1	20.01	97	23	73.5	4 - 5
5 - 6	-9	1	20.29	97	23.3	73.9	5 - 6
6 - 7	-9	-9	20.66	97	23.6	74.5	6 - 7
7 - 8	-9	-9	21.87	96	24.8	76.6	7 - 8
8 - 9	-9	-9	23.14	93	26.4	79.4	8 - 9
9 - 10	-9	-9	22.39	90	26.4	79.4	9 - 10
10 - 11	-9	-9	23.75	85	28.5	83.2	10 - 11
11 - 12	-9	-9	24.02	78	30.2	86.4	11 - 12
12 - 13	-9	-9	24.62	75	31.4	88.6	12 - 13
13 - 14	-9	-9	24.42	71	32.3	90.2	13 - 14
14 - 15	-9	-9	24.76	70	32.8	91.1	14 - 15
15 - 16	-9	-9	24.05	68	32.8	91.1	15 - 16
16 - 17	-9	-9	24.59	68	33.3	91.9	16 - 17
17 - 18	-9	-9	23.26	67	32.5	90.5	17 - 18
18 - 19	-9	-9	20.39	68	29.8	85.6	18 - 19
19 - 20	-9	-9	20.2	82	26.2	79.1	19 - 20
20 - 21	-9	-9	20.65	88	25.3	77.6	20 - 21
21 - 22	-9	-9	21.32	90	25.5	77.9	21 - 22
22 - 23	-9	-9	20.36	88	25.1	77.1	22 - 23
23 - 24	-9	-9	19.77	88	24.5	76.2	23 - 24

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JULY 9 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.2	0	360	0.1	0.04	15	0 - 1
1 - 2	0.1	1	360	0.1	0.038	14	1 - 2
2 - 3	0.1	2	225	0.1	0.043	16	2 - 3
3 - 4	0.1	2	225	0.1	0.05	18	3 - 4
4 - 5	0.1	2	225	0.1	0.052	19	4 - 5
5 - 6	0.2	2	225	0.1	5.30000E-2	20	5 - 6
6 - 7	0.2	3	225	0.2	0.048	18	6 - 7
7 - 8	0.3	4	225	0.2	0.048	18	7 - 8
8 - 9	0.5	4	225	0.1	0.054	20	8 - 9
9 - 10	0.5	3	225	0.1	0.064	24	9 - 10
10 - 11	0.7	3	225	0.2	0.047	17	10 - 11
11 - 12	1.2	3	225	0.2	0.054	20	11 - 12
12 - 13	1.3	5	225	0.1	0.042	15	12 - 13
13 - 14	1.4	6	225	0.1	0.045	17	13 - 14
14 - 15	1.3	6	225	0.1	4.60000E-2	17	14 - 15
15 - 16	1.1	6	225	0.1	4.90000E-2	18	15 - 16
16 - 17	0.9	5	225	0.2	0.059	22	16 - 17
17 - 18	0.7	5	225	0.2	6.30000E-2	23	17 - 18
18 - 19	0.4	5	225	0.2	0.06	22	18 - 19
19 - 20	0.2	3	225	0.2	3.90000E-2	14	19 - 20
20 - 21	0.1	2	180	0.1	0.036	13	20 - 21
21 - 22	0.1	4	225	0.1	0.025	9	21 - 22
22 - 23	0.1	3	225	0.1	0.024	9	22 - 23
23 - 24	0.1	3	225	0.1	0.027	10	23 - 24

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JULY 10 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	33	2323	1984	338	0	0	0 - 1
1 - 2	43	2461	2217	243	0	0	1 - 2
2 - 3	60	2895	2799	95	0	0	2 - 3
3 - 4	35	2228	1804	423	0	0	3 - 4
4 - 5	17	2545	1878	666	84	0	4 - 5
5 - 6	30	2228	1815	412	22	0	5 - 6
6 - 7	26	2302	1836	465	30	0	6 - 7
7 - 8	33	2323	1868	455	30	0	7 - 8
8 - 9	27	2376	1836	539	65	0	8 - 9
9 - 10	38	2408	1825	582	98	0	9 - 10
10 - 11	30	3085	1984	1101	76	0	10 - 11
11 - 12	38	2969	1921	1048	125	0	11 - 12
12 - 13	37	2143	1773	370	7	0	12 - 13
13 - 14	39	2154	1773	381	3	0	13 - 14
14 - 15	48	-9	-9	-9	0	0	14 - 15
15 - 16	50	-9	-9	-9	0	0	15 - 16
16 - 17	52	-9	-9	-9	0	0	16 - 17
17 - 18	52	-9	-9	-9	1	0	17 - 18
18 - 19	56	-9	-9	-9	3	0	18 - 19
19 - 20	43	-9	-9	-9	4	0	19 - 20
20 - 21	37	2514	1953	561	4	0	20 - 21
21 - 22	34	2440	1931	508	4	0	21 - 22
22 - 23	34	2397	1836	561	4	0	22 - 23
23 - 24	38	2228	1741	486	4	0	23 - 24

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JULY 10 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	-9	19.49	89	24.1	75.3	0 - 1
1 - 2	-9	-9	18.73	91	23	73.4	1 - 2
2 - 3	-9	-9	18.94	96	22.3	72.1	2 - 3
3 - 4	-9	-9	19.68	96	22.9	73.3	3 - 4
4 - 5	-9	-9	19.67	95	23.1	73.6	4 - 5
5 - 6	-9	-9	19.13	95	22.6	72.7	5 - 6
6 - 7	-9	-9	18.82	95	22.3	72.2	6 - 7
7 - 8	-9	-9	18.94	95	22.4	72.4	7 - 8
8 - 9	-9	-9	20.94	93	24.6	76.2	8 - 9
9 - 10	-9	-9	21.93	89	26.2	79.1	9 - 10
10 - 11	30	3	22.67	84	27.8	82.1	10 - 11
11 - 12	-9	2	23.34	78	29.7	85.5	11 - 12
12 - 13	-9	2	24.9	77	31.2	88.1	12 - 13
13 - 14	-9	1	24.76	75	31.5	88.8	13 - 14
14 - 15	-9	1	24.81	72	32.4	90.2	14 - 15
15 - 16	-9	1	24.62	70	32.7	90.9	15 - 16
16 - 17	-9	1	25.06	71	32.8	91.1	16 - 17
17 - 18	-9	1	23.87	68	32.7	90.9	17 - 18
18 - 19	-9	1	21.74	68	30.9	87.7	18 - 19
19 - 20	-9	2	20.48	70	29.3	84.7	19 - 20
20 - 21	-9	1	20.12	72	28.5	83.2	20 - 21
21 - 22	-9	1	20.28	75	27.9	82.2	21 - 22
22 - 23	-9	1	20.65	78	27.5	81.5	22 - 23
23 - 24	-9	1	19.77	82	25.8	78.4	23 - 24

PLYMOUTH PARK EXPERIMENT
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JULY 10 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.2	3	225	0.1	2.30000E-2	8	0 - 1
1 - 2	0.2	6	180	0.1	0.027	10	1 - 2
2 - 3	0.2	4	225	0.2	0.036	13	2 - 3
3 - 4	0.2	3	225	0.2	0.043	16	3 - 4
4 - 5	0.2	4	225	0.1	0.069	26	4 - 5
5 - 6	0.2	3	225	0.1	0.061	23	5 - 6
6 - 7	0.2	4	225	0.1	0.067	25	6 - 7
7 - 8	0.3	4	225	0.1	0.058	22	7 - 8
8 - 9	0.5	3	225	0.2	5.70000E-2	21	8 - 9
9 - 10	0.8	3	225	0.2	5.70000E-2	21	9 - 10
10 - 11	1.1	3	225	0.2	0.062	23	10 - 11
11 - 12	1.2	4	225	0.2	0.043	16	11 - 12
12 - 13	1.2	5	225	0	0.054	20	12 - 13
13 - 14	1.1	6	225	0	0.056	21	13 - 14
14 - 15	1.2	6	225	0.1	0.054	20	14 - 15
15 - 16	1.1	5	225	0.1	0.055	21	15 - 16
16 - 17	0.9	5	225	0.1	5.10000E-2	19	16 - 17
17 - 18	0.7	5	225	0.1	4.60000E-2	17	17 - 18
18 - 19	0.4	5	225	0.1	0.045	17	18 - 19
19 - 20	0.2	4	225	0.1	5.10000E-2	19	19 - 20
20 - 21	0.2	3	225	0.2	0.062	23	20 - 21
21 - 22	0.2	3	225	0.2	0.076	28	21 - 22
22 - 23	0.2	4	225	0.1	0.086	32	22 - 23
23 - 24	0.2	4	225	0.1	0.079	29	23 - 24

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JULY 11 , 1975

TIME EDT HOURS	OZONE PPB	TOTAL H.C. PPB	METHANE PPB	H.C.-CH4 PPB	TOTAL SULFUR PPB	RED. SULFUR PPB	TIME EDT HOURS
0 - 1	31	2503	1963	539	51	0	0 - 1
1 - 2	47	2249	1942	307	9	0	1 - 2
2 - 3	46	2111	1847	264	7	0	2 - 3
3 - 4	41	2207	1878	328	22	0	3 - 4
4 - 5	40	2334	1804	529	26	0	4 - 5
5 - 6	40	2492	1878	614	3	0	5 - 6
6 - 7	22	2408	1868	539	7	0	6 - 7
7 - 8	29	2821	2069	751	7	0	7 - 8
8 - 9	22	3816	2672	1143	13	0	8 - 9
9 - 10	16	2387	1942	444	11	0	9 - 10
10 - 11	19	2927	1910	1016	6	0	10 - 11
11 - 12	23	2207	1815	391	3	0	11 - 12
12 - 13	-9	-9	-9	-9	0	0	12 - 13
13 - 14	-9	-9	-9	-9	0	0	13 - 14
14 - 15	-9	-9	-9	-9	0	0	14 - 15
15 - 16	-9	-9	-9	-9	0	0	15 - 16
16 - 17	-9	-9	-9	-9	0	0	16 - 17
17 - 18	-9	-9	-9	-9	0	0	17 - 18
18 - 19	-9	-9	-9	-9	0	0	18 - 19
19 - 20	-9	-9	-9	-9	0	0	19 - 20
20 - 21	-9	-9	-9	-9	0	0	20 - 21
21 - 22	-9	-9	-9	-9	0	0	21 - 22
22 - 23	-9	-9	-9	-9	0	0	22 - 23
23 - 24	-9	-9	-9	-9	0	0	23 - 24

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JULY 11 , 1975

TIME EDT HOUR	NO PPB	NO2 PPB	ABS. HUM. G/M^3	REL. HUM. %	TEMP C	TEMP F	TIME EDT HOUR
0 - 1	-9	1	18.24	85	23.7	74.7	0 - 1
1 - 2	-9	1	18.15	95	21.7	71.1	1 - 2
2 - 3	-9	1	18.24	97	21.4	70.6	2 - 3
3 - 4	-9	-9	17.94	97	21.1	70	3 - 4
4 - 5	-9	1	18.28	98	21.3	70.3	4 - 5
5 - 6	-9	-9	18.09	98	21.1	70	5 - 6
6 - 7	-9	1	17.91	98	20.9	69.7	6 - 7
7 - 8	-9	1	17.69	98	20.7	69.3	7 - 8
8 - 9	-9	1	17.98	98	21	69.8	8 - 9
9 - 10	-9	1	18.99	97	22.1	71.8	9 - 10
10 - 11	-9	2	21.05	95	24.3	75.7	10 - 11
11 - 12	-9	1	21.42	92	25.2	77.3	11 - 12
12 - 13	-9	-9	-9	-9	-9	-9	12 - 13
13 - 14	-9	-9	-9	-9	-9	-9	13 - 14
14 - 15	-9	-9	-9	-9	-9	-9	14 - 15
15 - 16	-9	-9	-9	-9	-9	-9	15 - 16
16 - 17	-9	-9	-9	-9	-9	-9	16 - 17
17 - 18	-9	-9	-9	-9	-9	-9	17 - 18
18 - 19	-9	-9	-9	-9	-9	-9	18 - 19
19 - 20	-9	-9	-9	-9	-9	-9	19 - 20
20 - 21	-9	-9	-9	-9	-9	-9	20 - 21
21 - 22	-9	-9	-9	-9	-9	-9	21 - 22
22 - 23	-9	-9	-9	-9	-9	-9	22 - 23
23 - 24	-9	-9	-9	-9	-9	-9	23 - 24

PLYMOUTH PARK EXPERIMENT
OLD DOMINION UNIVERSITY
ATMOSPHERIC RESEARCH GROUP

JULY 11 , 1975

TIME EDT HOURS	SOLAR RAD LANGLIES	WIND SPEED MILES /HR	WIND DIR. DEGREES	C O H UNITS	B SCAT KM**-1	MASS LOAD UG/M**3	TIME EDT HOURS
0 - 1	0.2	5	225	0.2	0.086	32	0 - 1
1 - 2	0.2	3	225	0.2	0.048	18	1 - 2
2 - 3	0.2	4	225	0.1	0.035	13	2 - 3
3 - 4	0.2	4	225	0.1	0.03	11	3 - 4
4 - 5	0.2	3	225	0.1	0.031	11	4 - 5
5 - 6	0.2	1	225	0.1	0.028	10	5 - 6
6 - 7	0.2	1	225	0.1	0.026	9	6 - 7
7 - 8	0.2	0	360	0.1	0.03	11	7 - 8
8 - 9	0.3	0	360	0.1	3.90000E-2	14	8 - 9
9 - 10	0.4	0	360	0.1	0.033	12	9 - 10
10 - 11	0.5	1	180	0.1	0.03	11	10 - 11
11 - 12	0.4	0	360	0.1	0.027	10	11 - 12
12 - 13	-9	-9	-9	-9	-9	-9	12 - 13
13 - 14	-9	-9	-9	-9	-9	-9	13 - 14
14 - 15	-9	-9	-9	-9	-9	-9	14 - 15
15 - 16	-9	-9	-9	-9	-9	-9	15 - 16
16 - 17	-9	-9	-9	-9	-9	-9	16 - 17
17 - 18	-9	-9	-9	-9	-9	-9	17 - 18
18 - 19	-9	-9	-9	-9	-9	-9	18 - 19
19 - 20	-9	-9	-9	-9	-9	-9	19 - 20
20 - 21	-9	-9	-9	-9	-9	-9	20 - 21
21 - 22	-9	-9	-9	-9	-9	-9	21 - 22
22 - 23	-9	-9	-9	-9	-9	-9	22 - 23
23 - 24	-9	-9	-9	-9	-9	-9	23 - 24

APPENDIX B

Frequencies of Observations

Units are same as in Appendix A.

```
WIND    DIRECTION
THE MAXIMUM VALUE OF THE DATA IS  405
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS  0
THE RANGE OF VALUES IS  405
THERE ARE  516 NON-NEGATIVE VALUES
 THE AVERAGE VALUE  IS  161.686
   THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS
```

LOWER	NUMBER	UPPER
0	29	20.25
20.25	0	40.5
40.5	73	60.75
60.75	0	81
81	57	101.25
101.25	0	121.5
121.5	129	141.75
141.75	0	162
162	61	182.25
182.25	0	202.5
202.5	0	222.75
222.75	87	243
243	0	263.25
263.25	17	283.5
283.5	0	303.75
303.75	24	324
324	0	344.25
344.25	20	364.5
364.5	0	384.75
384.75	19	405

```
OZONE    READINGS
TOTAL    HYDOCARBONS
METHANE    HYDROCARBONS
TOTAL    SULFUR
REDUCED    SULFUR
NITRIC    OXIDE
NO2    CONCENTRATIONS
ABSOLUTE    HUMIDITY
RELATIVE    HUMIDITY
TEMPERATURE    CELSIUS
SOLAR    RAD
WIND    SPEED
WIND    DIRECTION
THE MAXIMUM VALUE OF THE DATA IS  405
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS  0
THE RANGE OF VALUES IS  405
THERE ARE  516 NON-NEGATIVE VALUES
 THE AVERAGE VALUE  IS  161.686
   THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE  NUMBER OF BINS TO SORT DATA
 ?0\0\9
```

LOWER	NUMBER	UPPER
0	102	45
45	130	90
90	186	135
135	190	180
180	148	225
225	104	270
270	41	315
315	44	360
360	39	405

SOLAR RAD
THE MAXIMUM VALUE OF THE DATA IS 1.4
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 1.4
THERE ARE 512 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 0.384375
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
0	115	7.00000E-2
7.00000E-2	111	0.14
0.14	64	0.21
0.21	0	0.28
0.28	21	0.35
0.35	22	0.42
0.42	0	0.49
0.49	24	0.56
0.56	26	0.63
0.63	16	0.7
0.7	16	0.77
0.77	22	0.84
0.84	19	0.91
0.91	0	0.98
0.98	14	1.05
1.05	15	1.12
1.12	0	1.19
1.19	24	1.26
1.26	16	1.33
1.33	3	1.4

WIND SPEED
THE MAXIMUM VALUE OF THE DATA IS 8
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 8
THERE ARE 516 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 2.94574
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
0	38	0.4
0.4	28	0.8
0.8	70	1.2
1.2	0	1.6
1.6	90	2
2	90	2.4
2.4	0	2.8
2.8	92	3.2
3.2	0	3.6
3.6	83	4
4	83	4.4
4.4	0	4.8
4.8	56	5.2
5.2	0	5.6
5.6	47	6
6	47	6.4
6.4	0	6.8
6.8	10	7.2
7.2	0	7.6
7.6	2	8

RELATIVE HUMIDITY
THE MAXIMUM VALUE OF THE DATA IS 99
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 98
THERE ARE 505 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 78.0416
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	0	5.9
5.9	0	10.8
10.8	0	15.7
15.7	0	20.6
20.6	0	25.5
25.5	0	30.4
30.4	0	35.3
35.3	0	40.2
40.2	0	45.1
45.1	3	50
50	22	54.9
54.9	38	59.8
59.8	32	64.7
64.7	48	69.6
69.6	65	74.5
74.5	56	79.4
79.4	62	84.3
84.3	59	89.2
89.2	48	94.1
94.1	75	99

TEMPERATURE CELSIUS
THE MAXIMUM VALUE OF THE DATA IS 35.8
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 34.8
THERE ARE 516 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 24.8517
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	0	2.74
2.74	0	4.48
4.48	0	6.22
6.22	0	7.96
7.96	0	9.7
9.7	0	11.44
11.44	0	13.18
13.18	0	14.92
14.92	9	16.66
16.66	13	18.4
18.4	36	20.14
20.14	59	21.88
21.88	106	23.62
23.62	79	25.36
25.36	69	27.1
27.1	47	28.84
28.84	48	30.58
30.58	25	32.32
32.32	19	34.06
34.06	6	35.8

NO2 CONCENTRATIONS
THE MAXIMUM VALUE OF THE DATA IS 51
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 50
THERE ARE 457 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 10.3786
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	140	3.5
3.5	77	6
6	58	8.5
8.5	43	11
11	32	13.5
13.5	33	16
16	38	18.5
18.5	15	21
21	12	23.5
23.5	14	26
26	8	28.5
28.5	7	31
31	3	33.5
33.5	4	36
36	4	38.5
38.5	6	41
41	8	43.5
43.5	1	46
46	0	48.5
48.5	2	51

ABSOLUTE HUMIDITY
THE MAXIMUM VALUE OF THE DATA IS 25.06
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 24.06
THERE ARE 505 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 17.7729
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	0	2.203
2.203	0	3.406
3.406	0	4.609
4.609	0	5.812
5.812	0	7.015
7.015	0	8.218
8.218	0	9.421
9.421	0	10.624
10.624	7	11.827
11.827	22	13.03
13.03	45	14.233
14.233	28	15.436
15.436	73	16.639
16.639	72	17.842
17.842	95	19.045
19.045	64	20.248
20.248	52	21.451
21.451	24	22.654
22.654	10	23.857
23.857	13	25.06

REDUCED SULFUR
THE MAXIMUM VALUE OF THE DATA IS 6
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 6
THERE ARE 496 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 1.89919
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
0	324	0.3
0.3	0	0.6
0.6	0	0.9
0.9	0	1.2
1.2	0	1.5
1.5	0	1.8
1.8	0	2.1
2.1	0	2.4
2.4	0	2.7
2.7	0	3
3	0	3.3
3.3	0	3.6
3.6	0	3.9
3.9	0	4.2
4.2	0	4.5
4.5	0	4.8
4.8	90	5.1
5.1	0	5.4
5.4	0	5.7
5.7	82	6

NITRIC OXIDE
THE MAXIMUM VALUE OF THE DATA IS 67
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 67
THERE ARE 230 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 2.85652
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
0	190	3.35
3.35	13	6.7
6.7	14	10.05
10.05	4	13.4
13.4	2	16.75
16.75	1	20.1
20.1	0	23.45
23.45	2	26.8
26.8	1	30.15
30.15	0	33.5
33.5	0	36.85
36.85	1	40.2
40.2	0	43.55
43.55	0	46.9
46.9	0	50.25
50.25	0	53.6
53.6	1	56.95
56.95	0	60.3
60.3	0	63.65
63.65	1	67

METHANE HYDROCARBONS
THE MAXIMUM VALUE OF THE DATA IS 9977
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 9976
THERE ARE 321 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 2171.11
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	1	499.8
499.8	0	998.6
998.6	21	1497.4
1497.4	144	1996.2
1996.2	79	2495
2495	43	2993.8
2993.8	21	3492.6
3492.6	8	3991.4
3991.4	2	4490.2
4490.2	1	4989
4989	0	5487.8
5487.8	0	5986.6
5986.6	0	6485.4
6485.4	0	6984.2
6984.2	0	7483
7483	0	7981.8
7981.8	0	8480.6
8480.6	0	8979.4
8979.4	0	9478.2
9478.2	1	9977

TOTAL SULFUR
THE MAXIMUM VALUE OF THE DATA IS 177
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 177
THERE ARE 518 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 5.67761
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
0	426	8.85
8.85	56	17.7
17.7	9	26.55
26.55	7	35.4
35.4	1	44.25
44.25	6	53.1
53.1	2	61.95
61.95	3	70.8
70.8	3	79.65
79.65	1	88.5
88.5	0	97.35
97.35	1	106.2
106.2	0	115.05
115.05	0	123.9
123.9	1	132.75
132.75	0	141.6
141.6	0	150.45
150.45	0	159.3
159.3	0	168.15
168.15	2	177

```
TEMPERATURE     FAHRENHEIT
THE MAXIMUM VALUE OF THE DATA IS  96.5
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS  1
THE RANGE OF VALUES IS  95.5
THERE ARE  516 NON-NEGATIVE VALUES
 THE AVERAGE VALUE  IS  76.73
   THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE  NUMBER OF BINS TO SORT DATA
 ?25
```

LOWER	NUMBER	UPPER
1	0	4.82
4.82	0	8.64
8.64	0	12.46
12.46	0	16.28
16.28	0	20.1
20.1	0	23.92
23.92	0	27.74
27.74	0	31.56
31.56	0	35.38
35.38	0	39.2
39.2	0	43.02
43.02	0	46.84
46.84	0	50.66
50.66	0	54.48
54.48	0	58.3
58.3	9	62.12
62.12	16	65.94
65.94	57	69.76
69.76	116	73.58
73.58	96	77.4
77.4	85	81.22
81.22	60	85.04
85.04	48	88.86
88.86	21	92.68
92.68	8	96.5

```
MASS    LOADING
THE MAXIMUM VALUE OF THE DATA IS  82
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS  0
THE RANGE OF VALUES IS  82
THERE ARE  516 NON-NEGATIVE VALUES
 THE AVERAGE VALUE  IS  12.8178
   THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE  NUMBER OF BINS TO SORT DATA
 ?25\52\30
```

LOWER	NUMBER	UPPER
0	15	2.73333
2.73333	65	5.46667
5.46667	113	8.2
8.2	58	10.9333
10.9333	84	13.6667
13.6667	42	16.4
16.4	54	19.1333
19.1333	24	21.8667
21.8667	25	24.6
24.6	10	27.3333
27.3333	9	30.0667
30.0667	2	32.8
32.8	2	35.5333
35.5333	3	38.2667
38.2667	2	41
41	2	43.7333
43.7333	0	46.4667
46.4667	2	49.2
49.2	0	51.9333
51.9333	1	54.6667
54.6667	0	57.4
57.4	1	60.1333
60.1333	0	62.8667
62.8667	1	65.6
65.6	0	68.3333
68.3333	1	71.0667
71.0667	0	73.8
73.8	1	76.5333
76.5333	0	79.2667
79.2667	1	82

B SCAT
THE MAXIMUM VALUE OF THE DATA IS 0.216
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 0.216
THERE ARE 516 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 3.50756E-2
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE NUMBER OF BINS TO SORT DATA
?25

LOWER	NUMBER	UPPER
0	18	0.00864
0.00864	81	0.01728
0.01728	114	0.02592
0.02592	104	0.03456
0.03456	57	0.0432
0.0432	51	0.05184
0.05184	38	0.06048
0.06048	23	0.06912
0.06912	8	0.07776
0.07776	7	0.0864
0.0864	2	9.50400E-2
9.50400E-2	3	0.10368
0.10368	2	0.11232
0.11232	0	0.12096
0.12096	2	0.1296
0.1296	0	0.13824
0.13824	1	0.14688
0.14688	0	0.15552
0.15552	1	0.16416
0.16416	0	0.1728
0.1728	1	0.18144
0.18144	1	0.19008
0.19008	0	0.19872
0.19872	1	0.20736
0.20736	0	0.216

NONMETHANE HYDROCARBONS
THE MAXIMUM VALUE OF THE DATA IS 5123
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 5123
THERE ARE 321 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 443.321
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE NUMBER OF BINS TO SORT DATA
?30

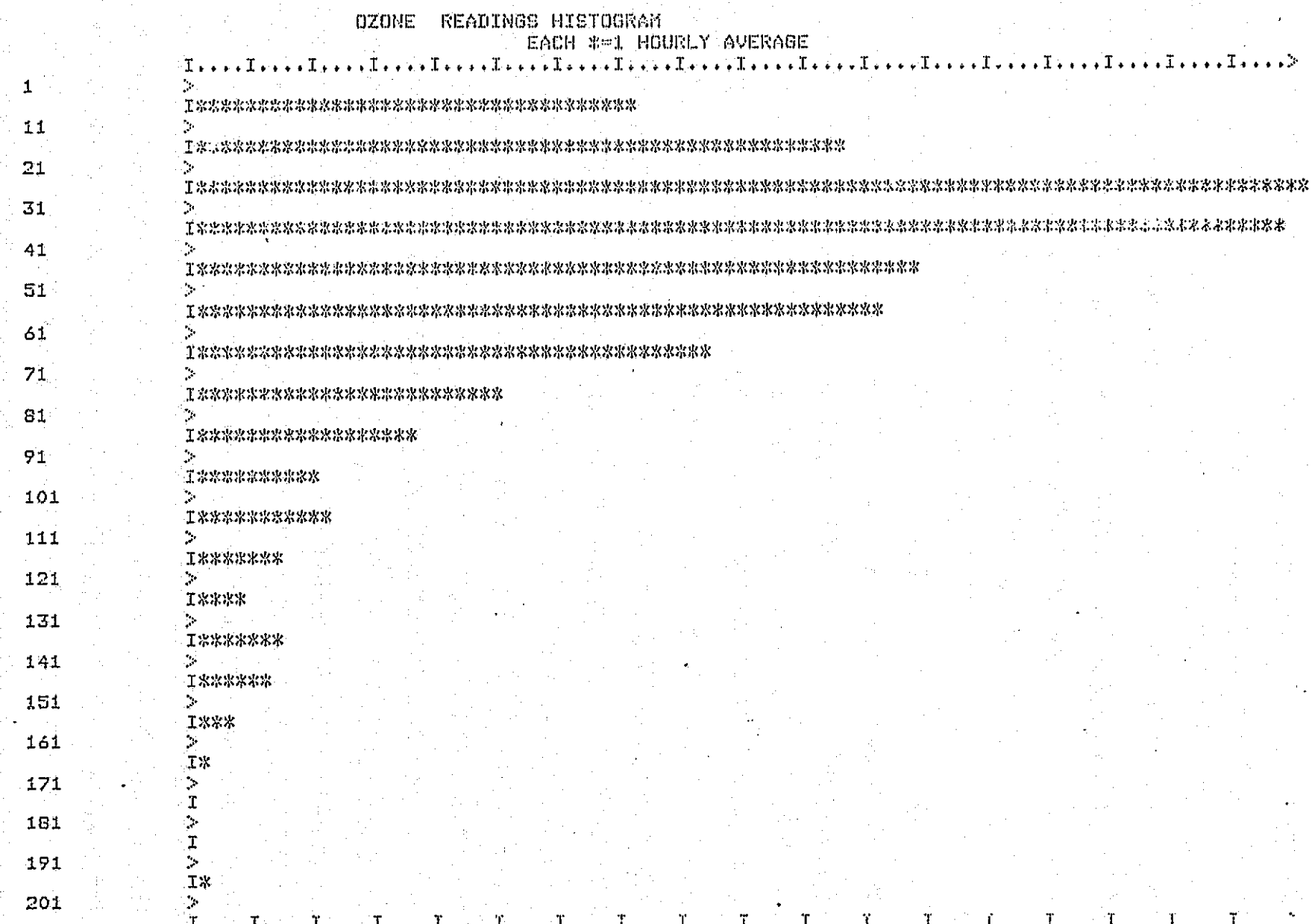
LOWER	NUMBER	UPPER
0	40	170.767
170.767	127	341.533
341.533	69	512.3
512.3	32	683.067
683.067	20	853.833
853.833	13	1024.6
1024.6	11	1195.37
1195.37	2	1366.13
1366.13	2	1536.9
1536.9	2	1707.67
1707.67	1	1878.43
1878.43	0	2049.2
2049.2	0	2219.97
2219.97	0	2390.73
2390.73	0	2561.5
2561.5	1	2732.27
2732.27	0	2903.03
2903.03	0	3073.8
3073.8	0	3244.57
3244.57	0	3415.33
3415.33	0	3586.1
3586.1	0	3756.87
3756.87	0	3927.63
3927.63	0	4098.4
4098.4	0	4269.17
4269.17	0	4439.93
4439.93	0	4610.7
4610.7	0	4781.47
4781.47	0	4952.23
4952.23	1	5123

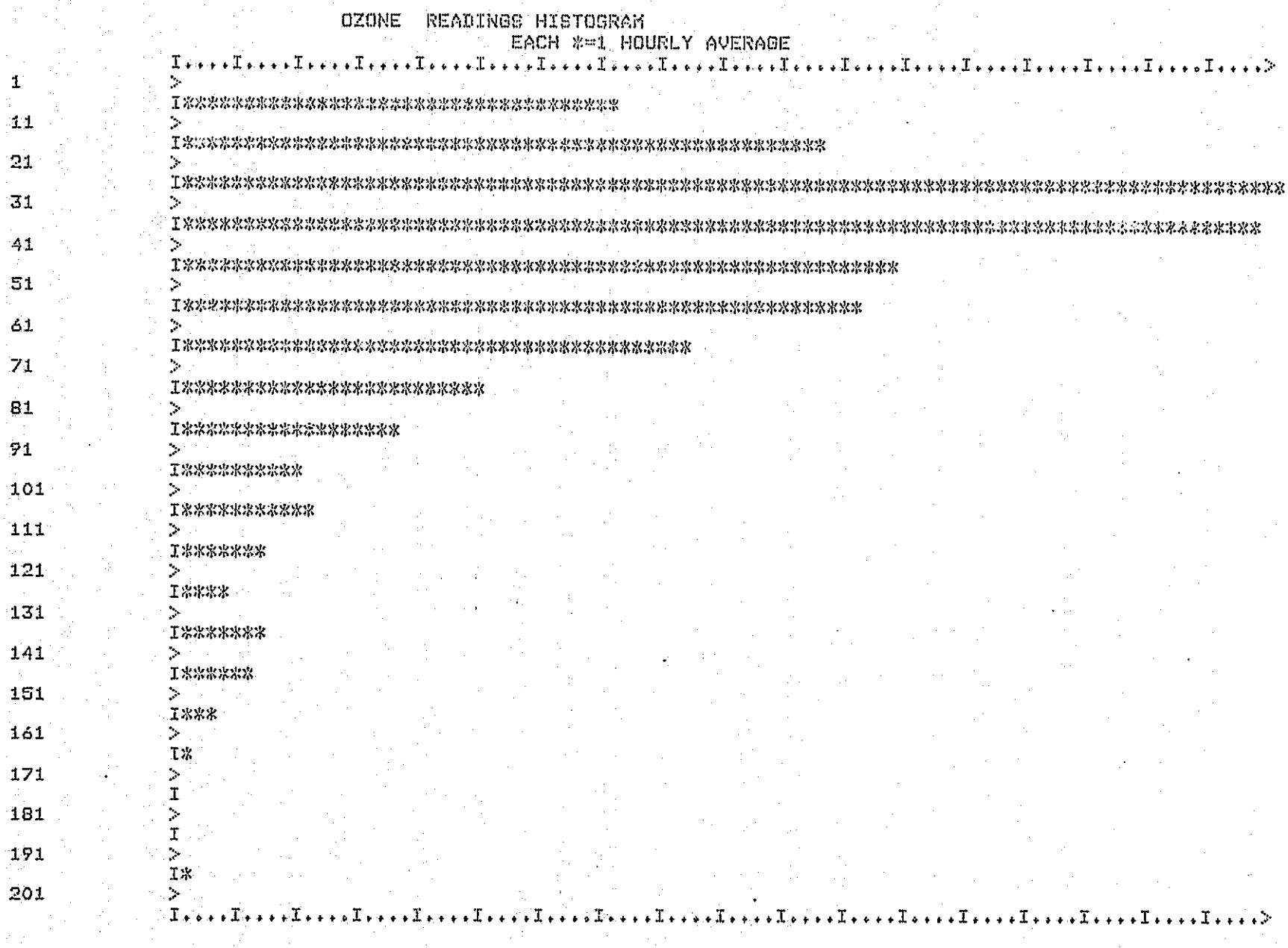
HAZE COEFFICIENT
THE MAXIMUM VALUE OF THE DATA IS 0.6
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 0
THE RANGE OF VALUES IS 0.6
THERE ARE 440 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 0.136364
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
INPUT THE NUMBER OF BINS TO SORT DATA
?6

LOWER	NUMBER	UPPER
0	278	0.1
0.1	102	0.2
0.2	52	0.3
0.3	58	0.4
0.4	0	0.5
0.5	2	0.6

TOTAL HYDOCARBONS
THE MAXIMUM VALUE OF THE DATA IS 9998
THE MINIMUM OF THE ABS. VALUES OF THE DATA IS 1
THE RANGE OF VALUES IS 9997
THERE ARE 328 NON-NEGATIVE VALUES
THE AVERAGE VALUE IS 2620.6
THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!
HISTOGRAM IS TO 20 BINS

LOWER	NUMBER	UPPER
1	1	500.85
500.85	0	1000.7
1000.7	0	1500.55
1500.55	99	2000.4
2000.4	84	2500.25
2500.25	72	3000.1
3000.1	21	3499.95
3499.95	28	3999.8
3999.8	13	4499.65
4499.65	5	4999.5
4999.5	0	5499.35
5499.35	1	5999.2
5999.2	0	6499.05
6499.05	1	6998.9
6998.9	0	7498.75
7498.75	0	7998.6
7998.6	0	8498.45
8498.45	0	8998.3
8998.3	1	9498.15
9498.15	2	9998




OZONE READINGS HISTOGRAM
EACH *=1 HOURLY AVERAGE
I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....I....>
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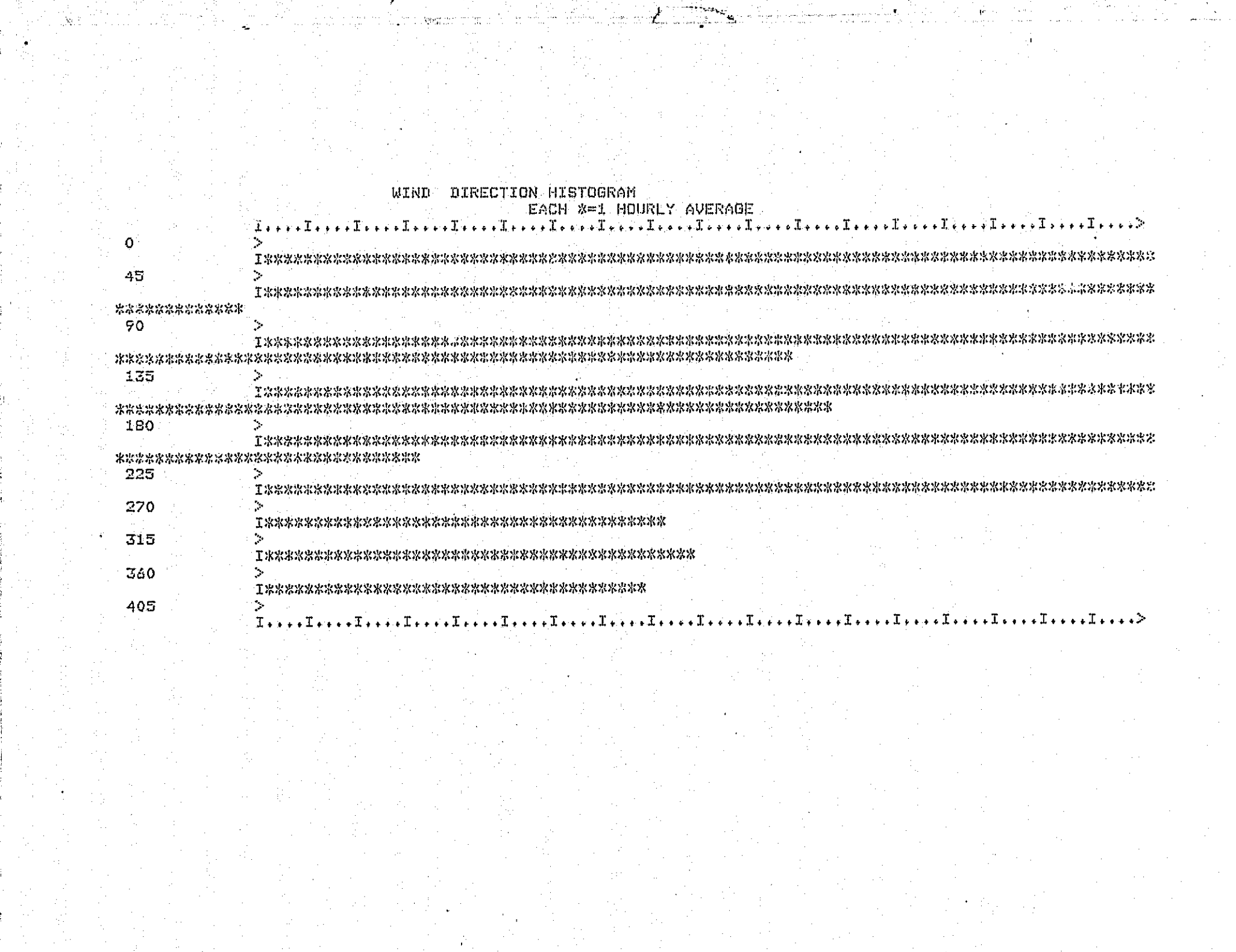
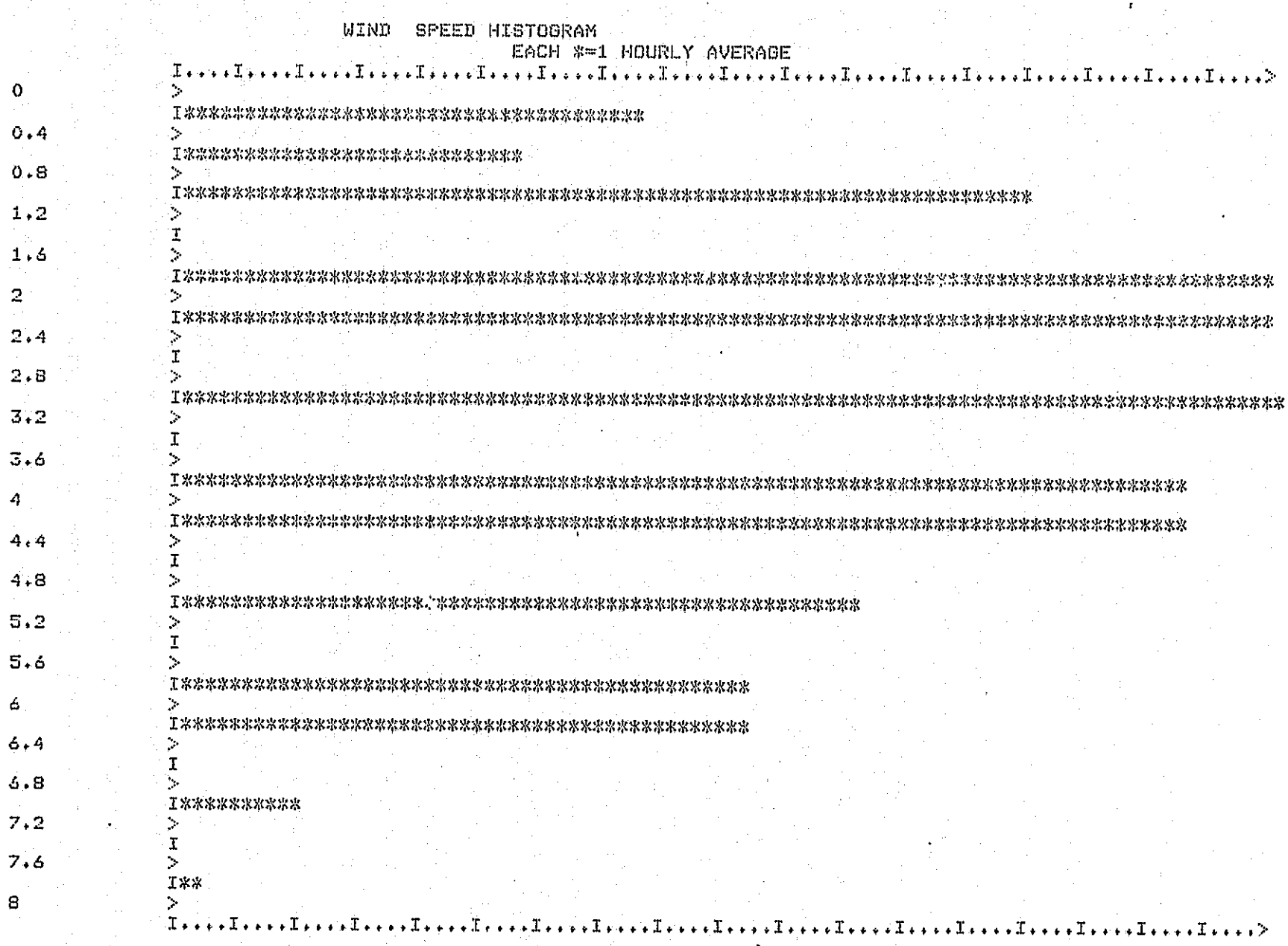
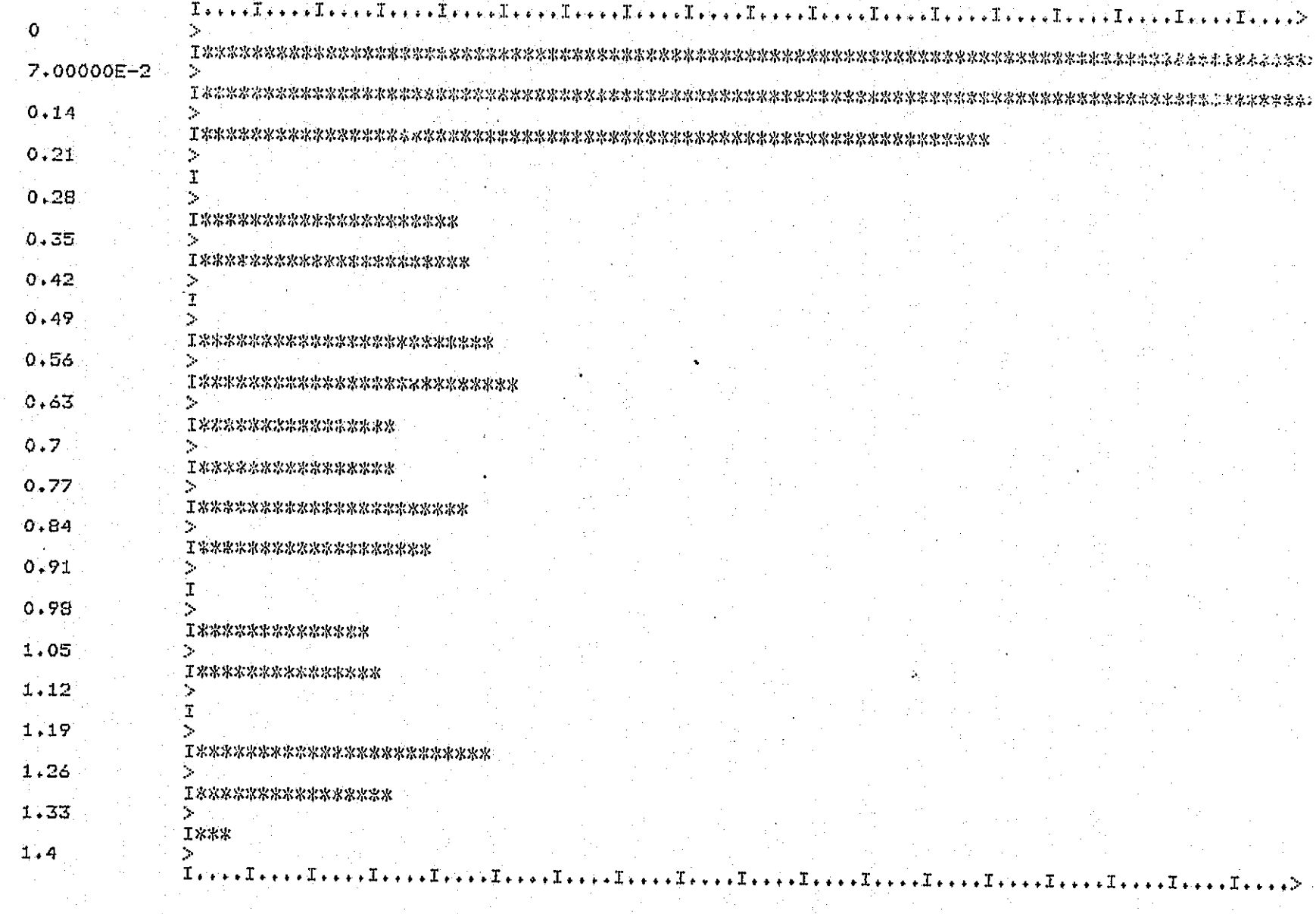
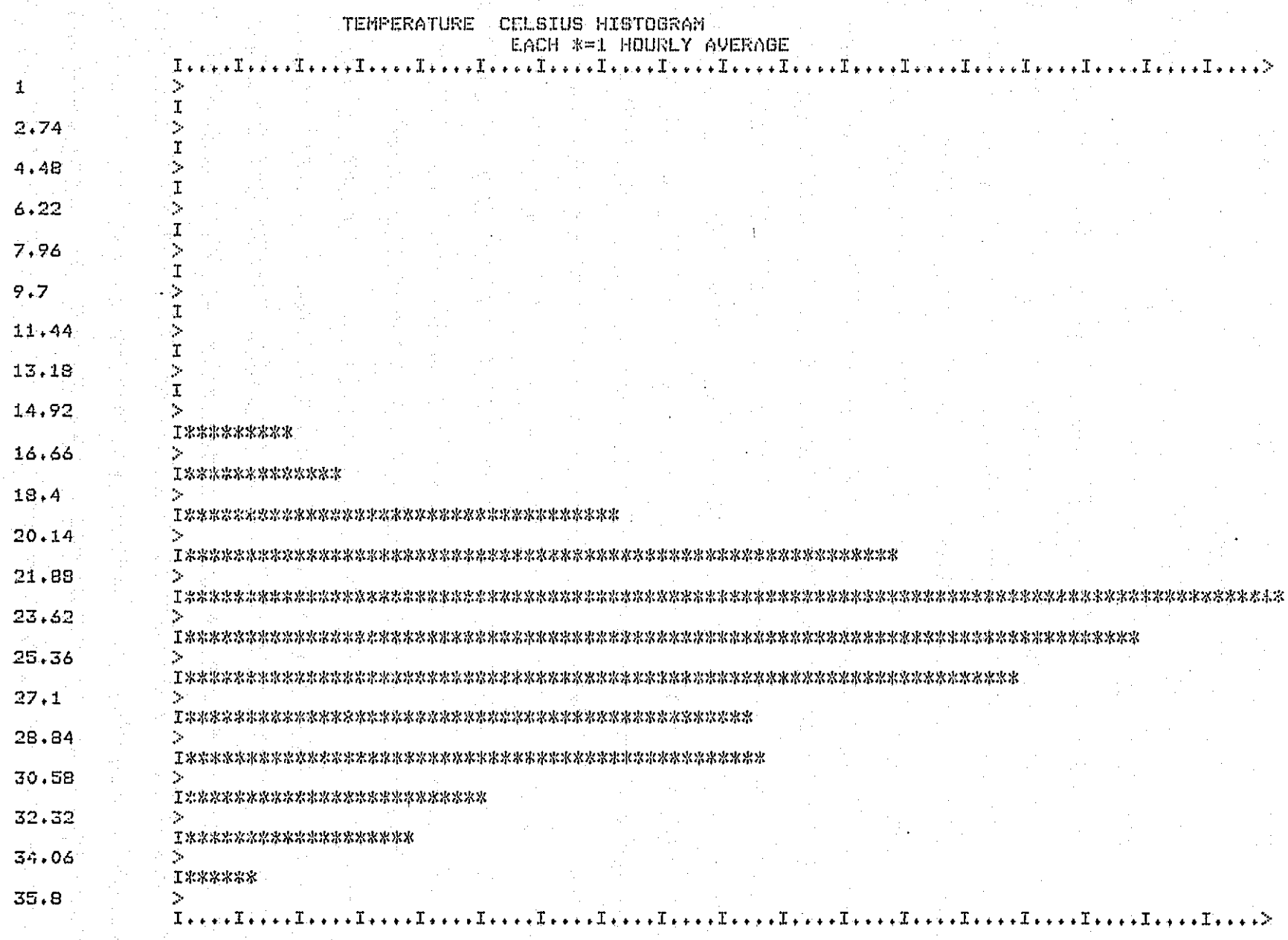
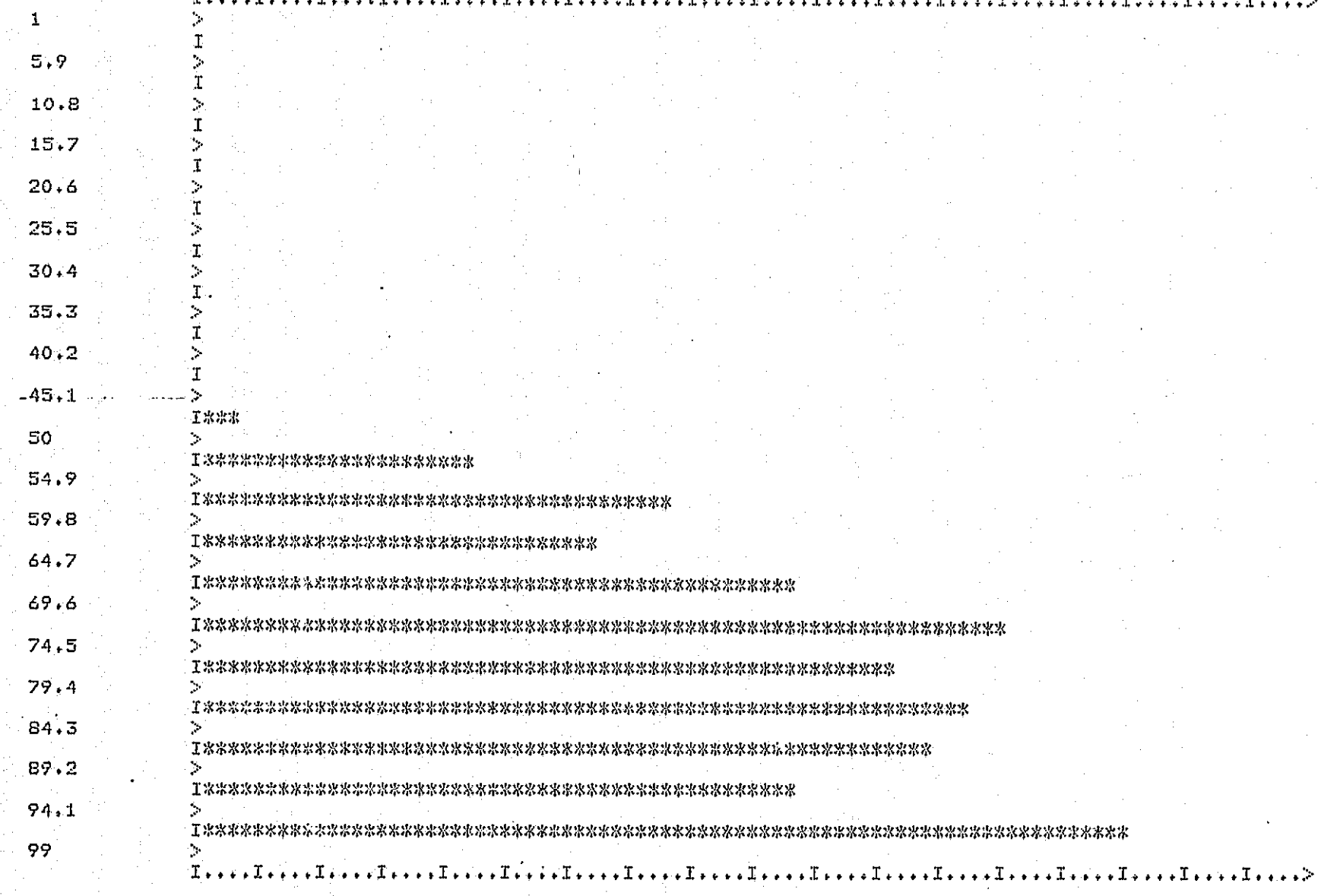

WIND DIRECTION HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
45
90
135
180
225
270
315
360
405

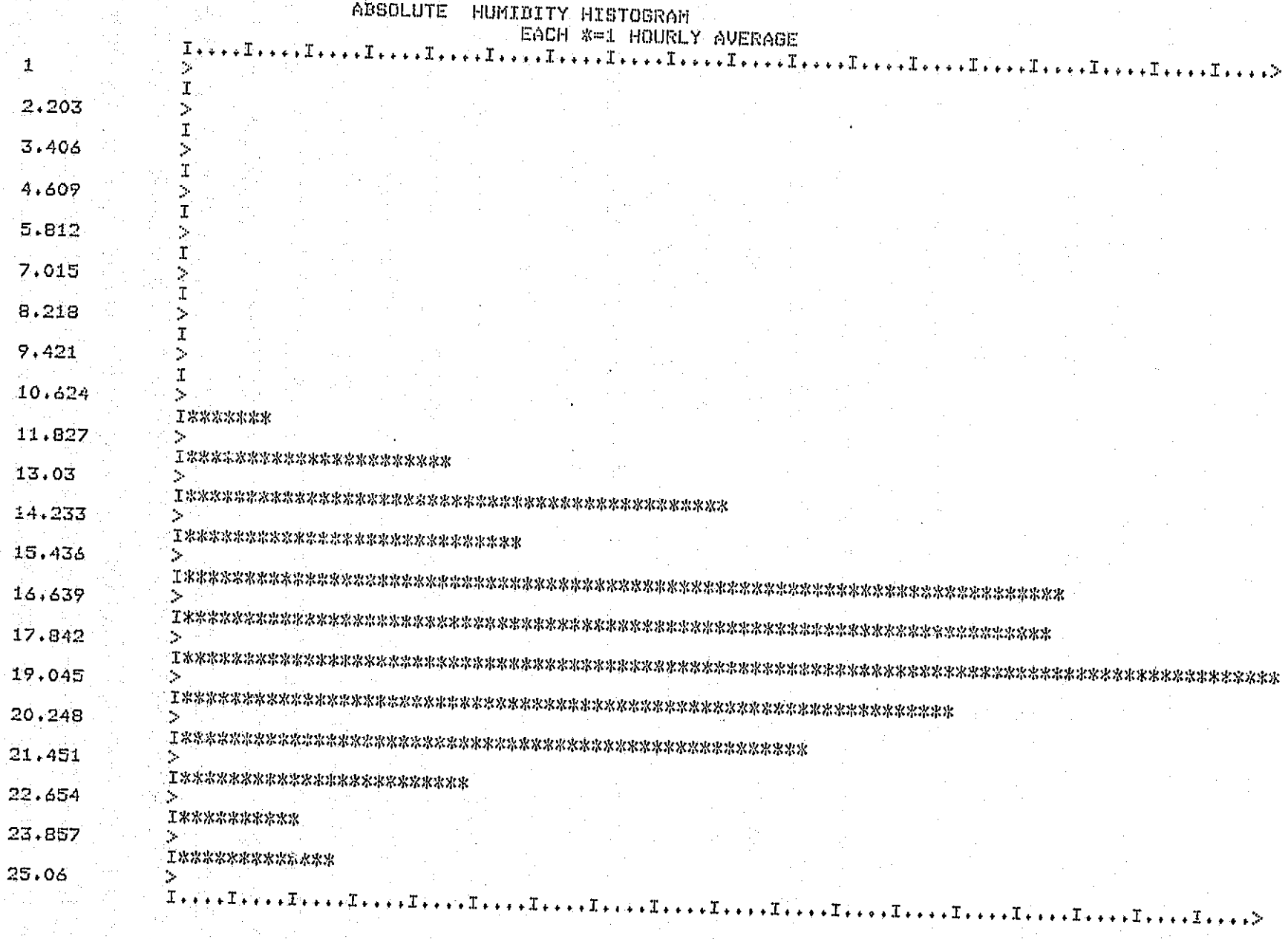

WIND SPEED HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
0.4
0.8
1.2
1.6
2
2.4
2.8
3.2
3.6
4
4.4
4.8
5.2
5.6
6
6.4
6.8
7.2
7.6
8

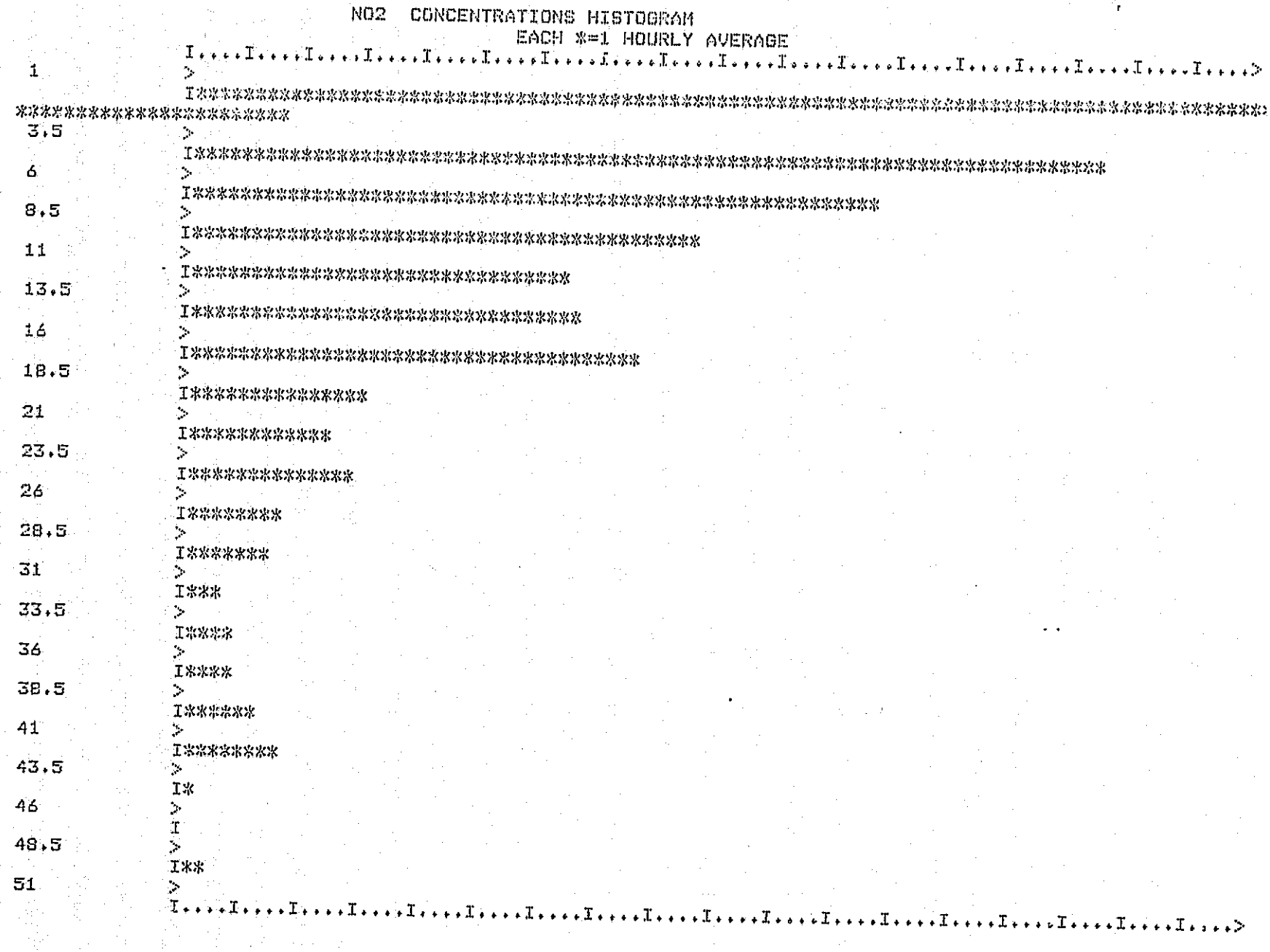


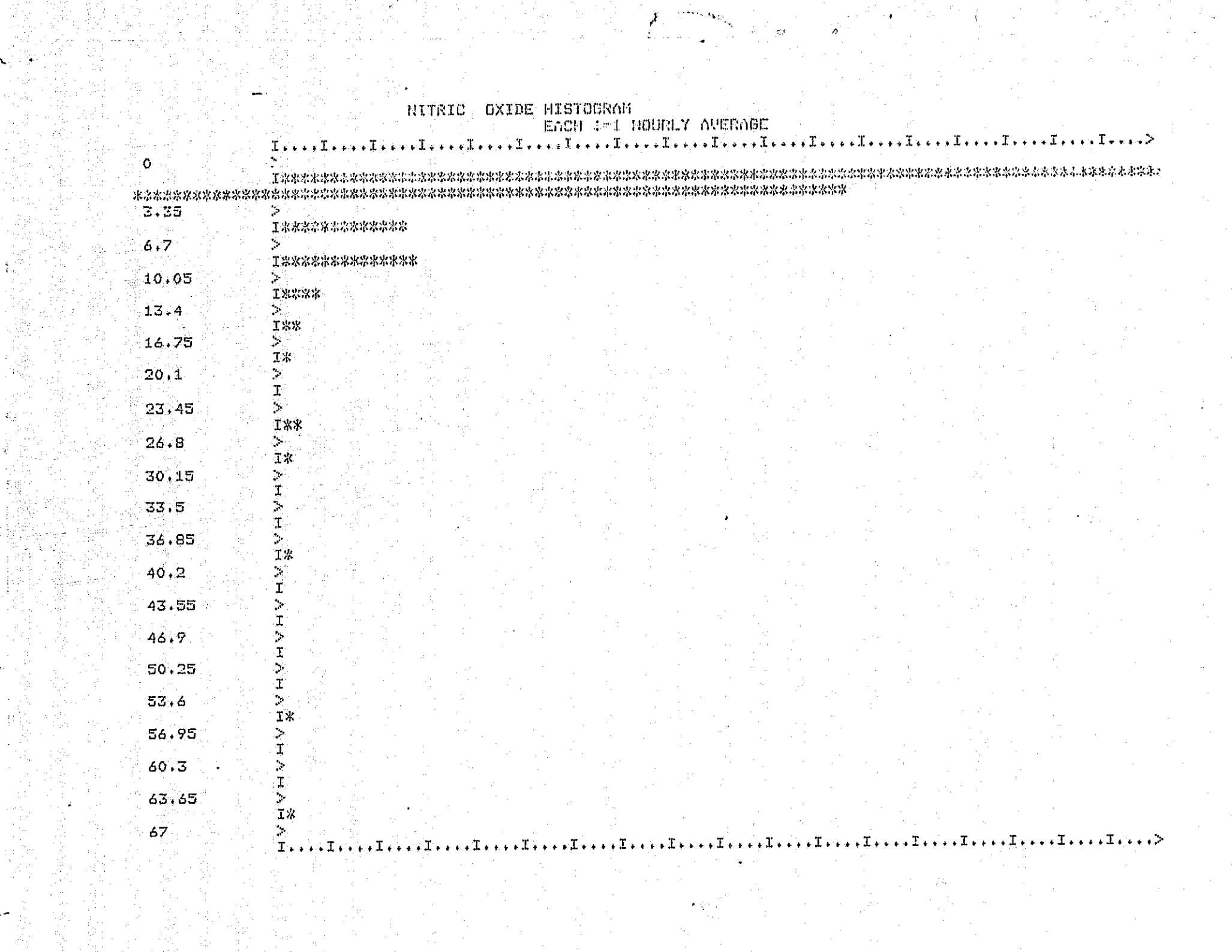

TEMPERATURE CELSIUS HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
2.74
4.48
6.22
7.96
9.7
11.44
13.18
14.92
16.66
18.4
20.14
21.88
23.62
25.36
27.1
28.84
30.58
32.32
34.06
35.8

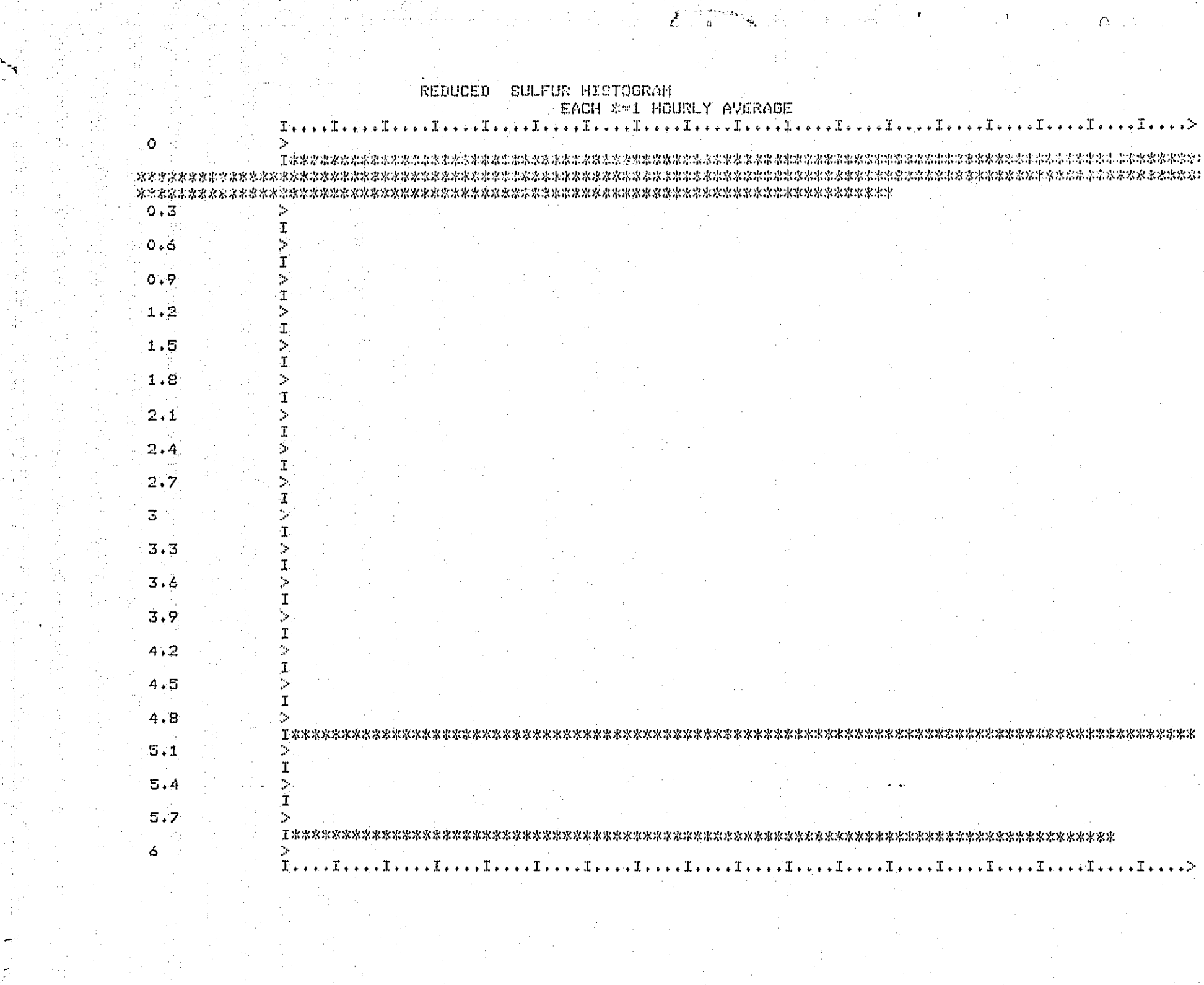
RELATIVE HUMIDITY HISTOGRAM
EACH *=1 HOURLY AVERAGE

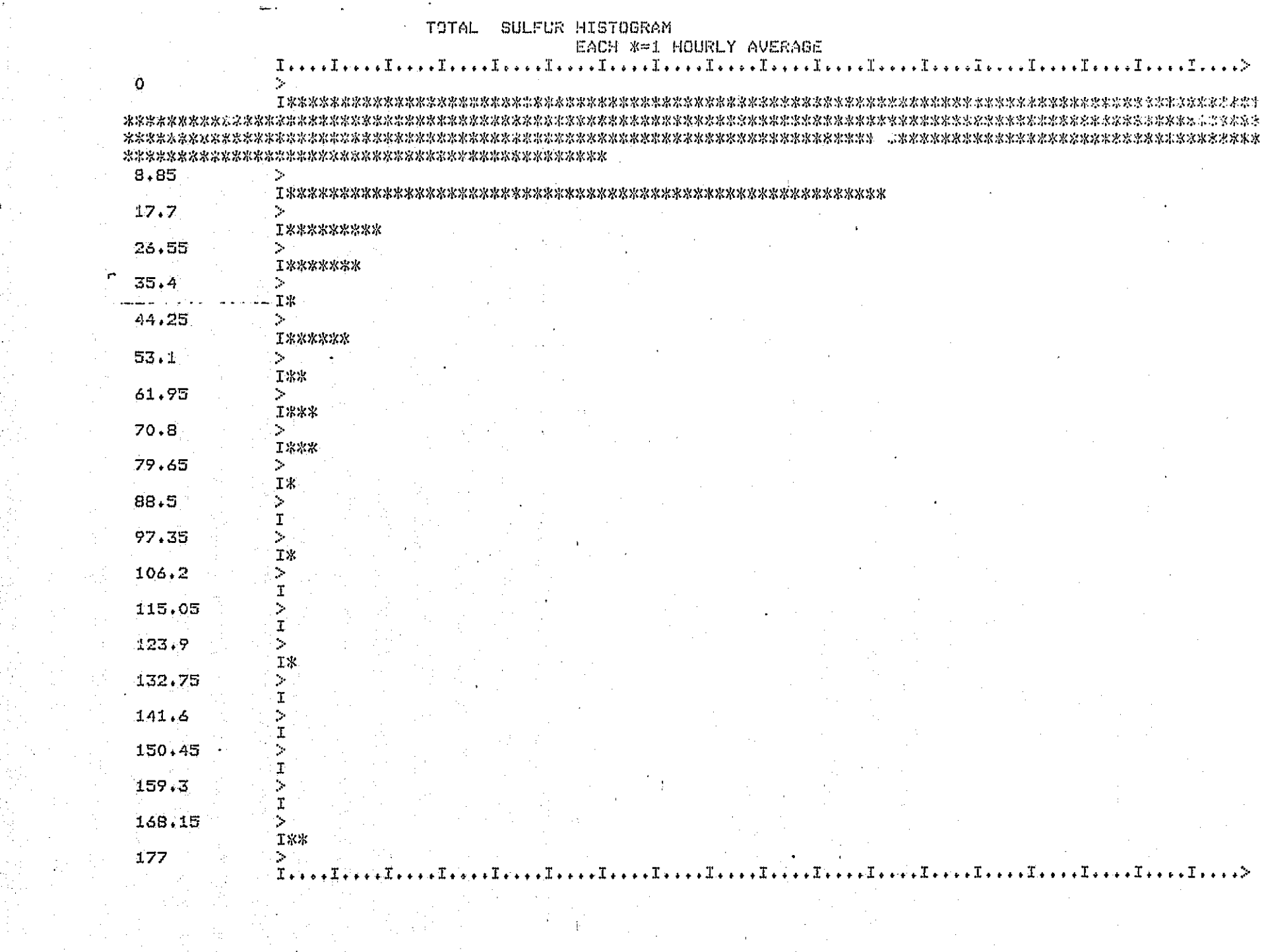


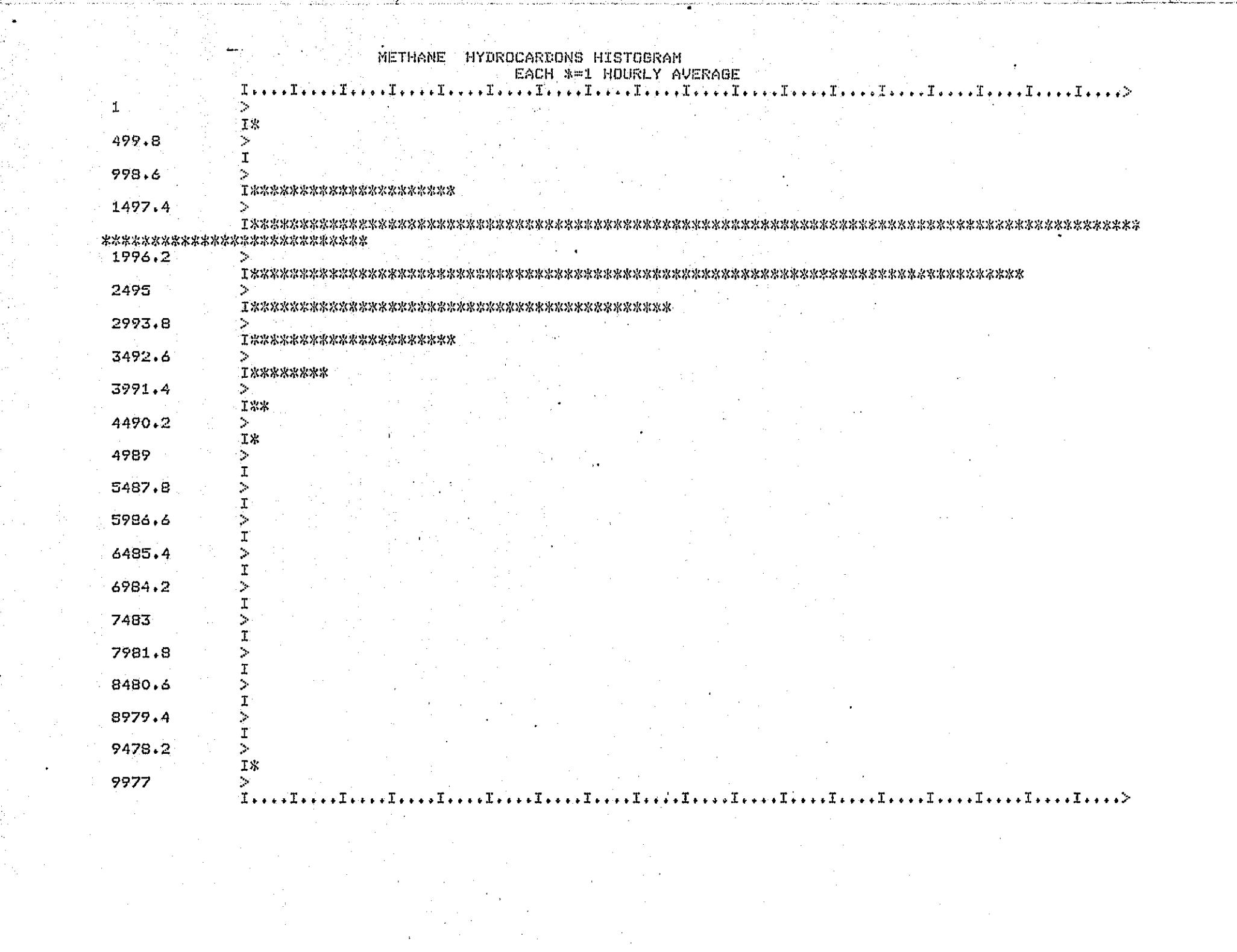

ABSOLUTE HUMIDITY HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
2.203
3.406
4.609
5.812
7.015
8.218
9.421
10.624
11.827
13.03
14.233
15.436
16.639
17.842
19.045
20.248
21.451
22.654
23.857
25.06

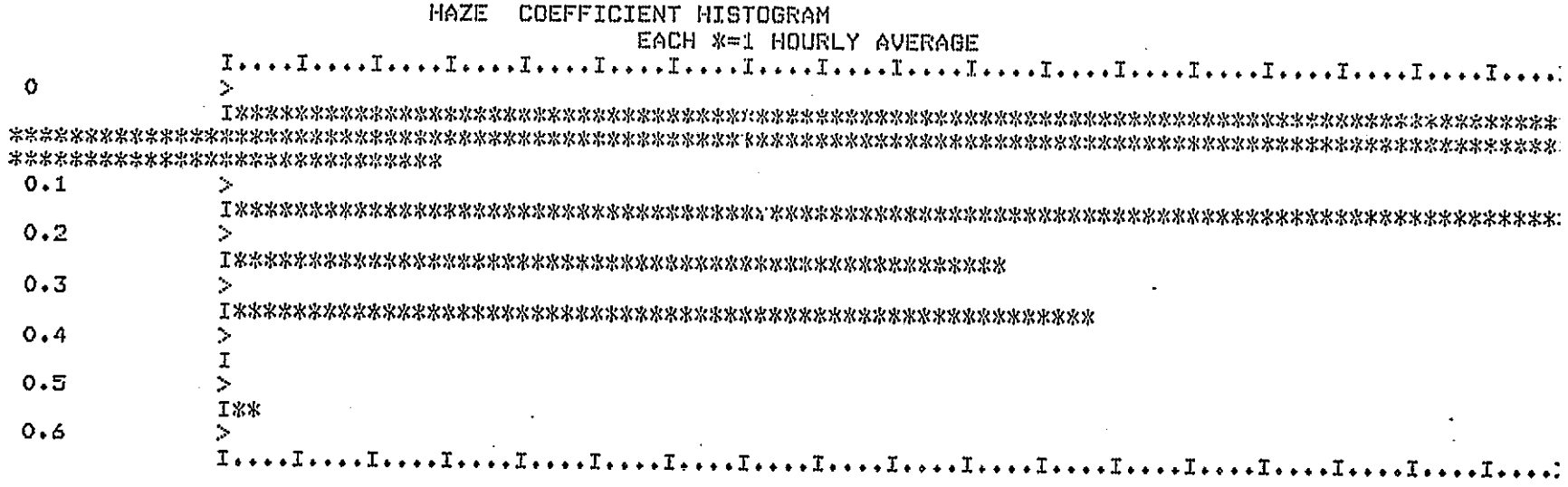

NO2 CONCENTRATIONS HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
3.5
6
8.5
11
13.5
16
18.5
21
23.5
26
28.5
31
33.5
36
38.5
41
43.5
46
48.5
51

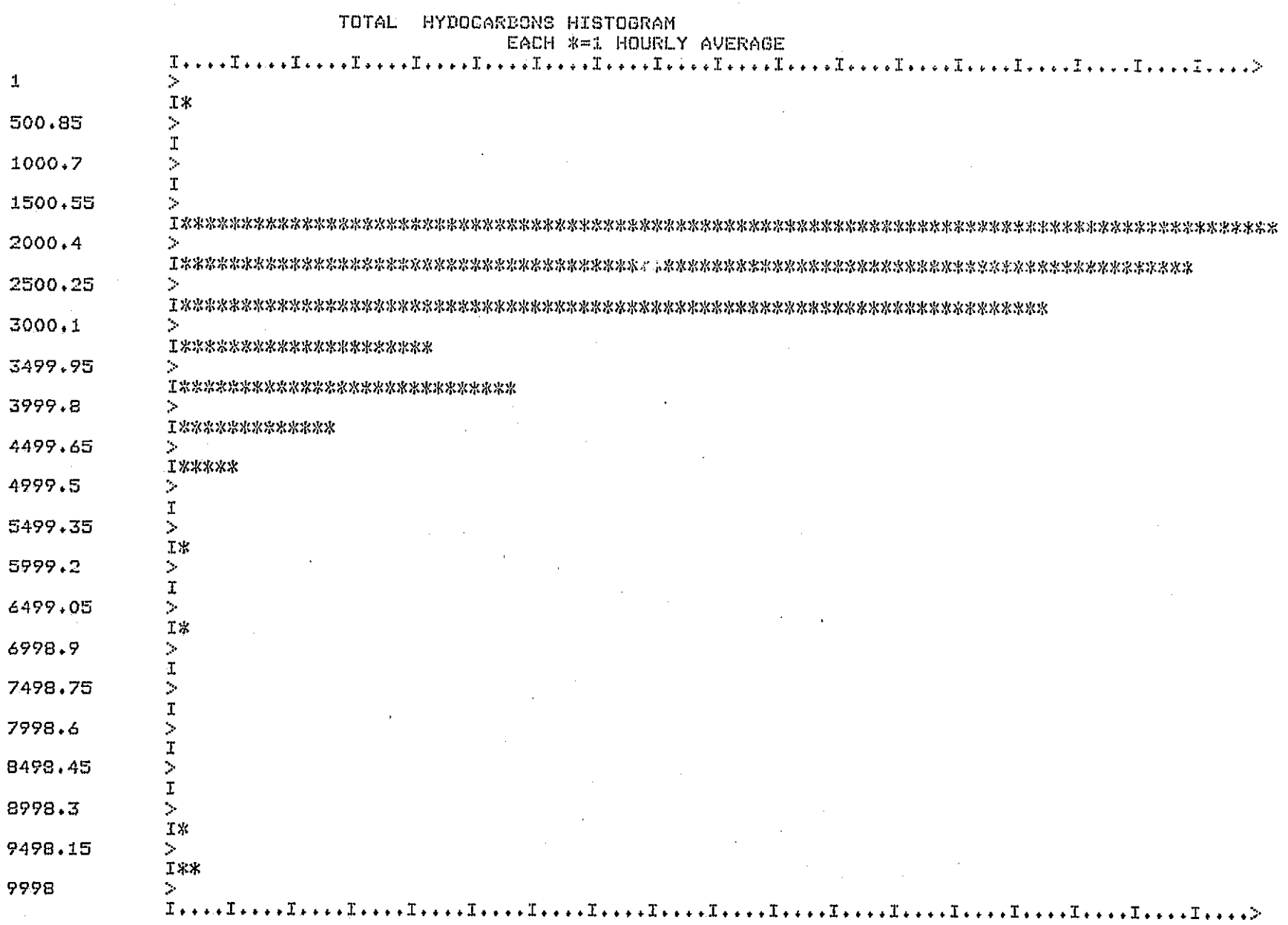

NITRIC OXIDE HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
3.35
6.7
10.05
13.4
16.75
20.1
23.45
26.8
30.15
33.5
36.85
40.2
43.55
46.9
50.25
53.6
56.95
60.3
63.65
67


REDUCED SULFUR HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6

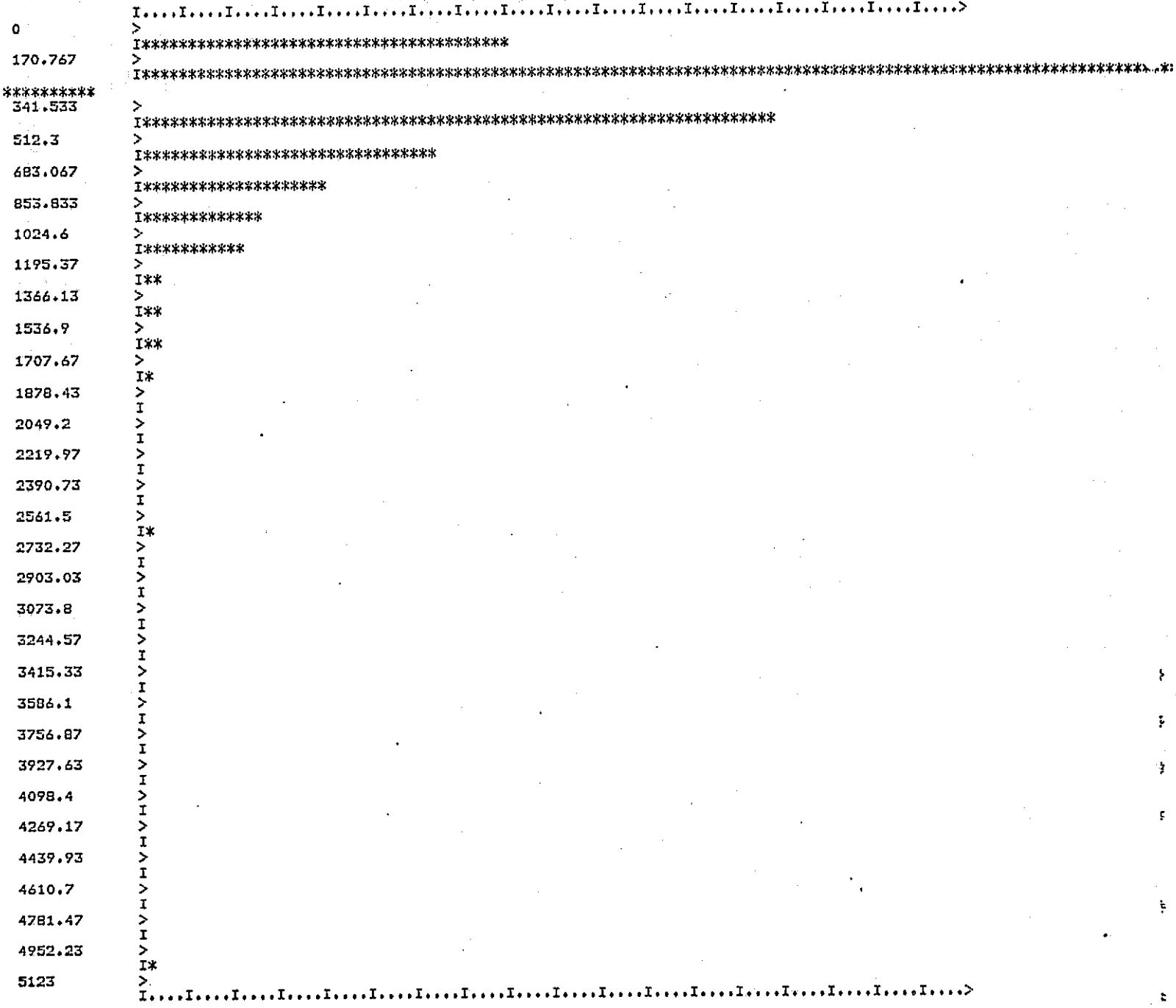

TOTAL SULFUR HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
8.85
17.7
26.55
35.4
44.25
53.1
61.95
70.8
79.65
88.5
97.35
106.2
115.05
123.9
132.75
141.6
150.45
159.3
168.15
177

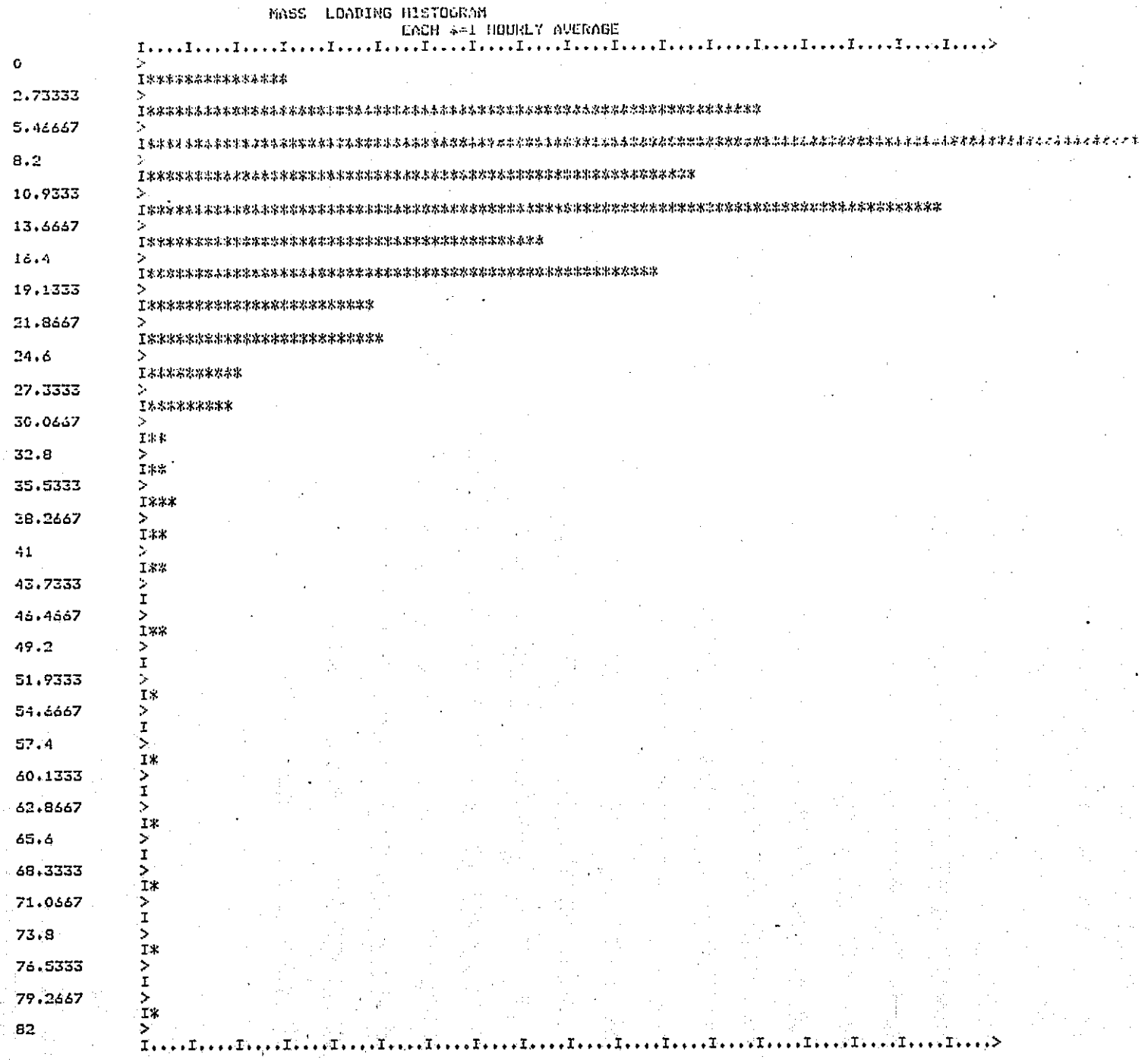

METHANE HYDROCARBONS HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
499.8
998.6
1497.4
1996.2
2495
2993.8
3492.6
3991.4
4490.2
4989
5487.8
5986.6
6485.4
6984.2
7483
7981.8
8480.6
8979.4
9478.2
9977

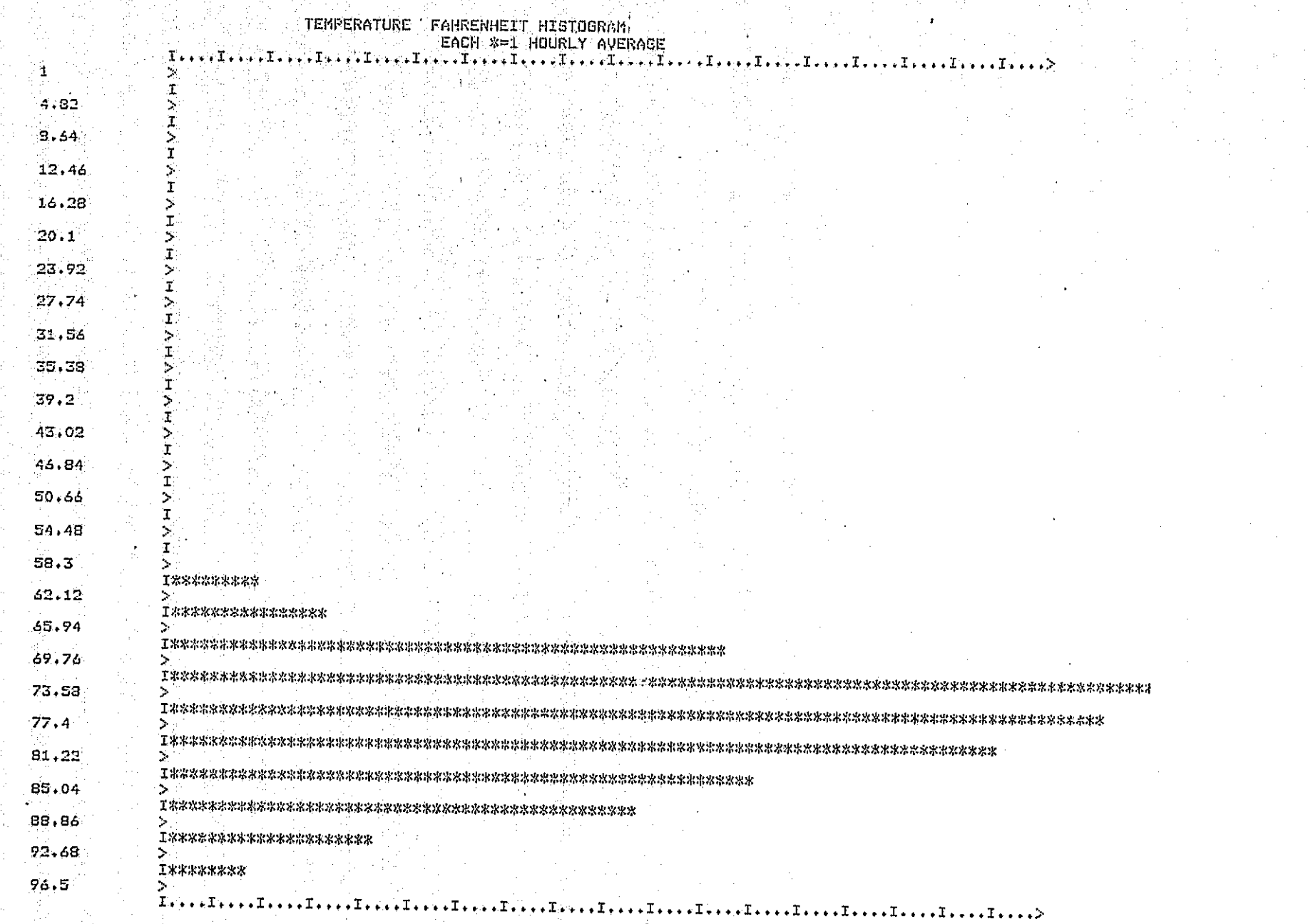

HAZE COEFFICIENT HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
0.1
0.2
0.3
0.4
0.5
0.6


TOTAL HYDOCARBONS HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
500.85
1000.7
1500.55
2000.4
2500.25
3000.1
3499.95
3999.8
4499.65
4999.5
5499.35
5999.2
6499.05
6998.9
7498.75
7998.6
8498.45
8998.3
9498.15
9998

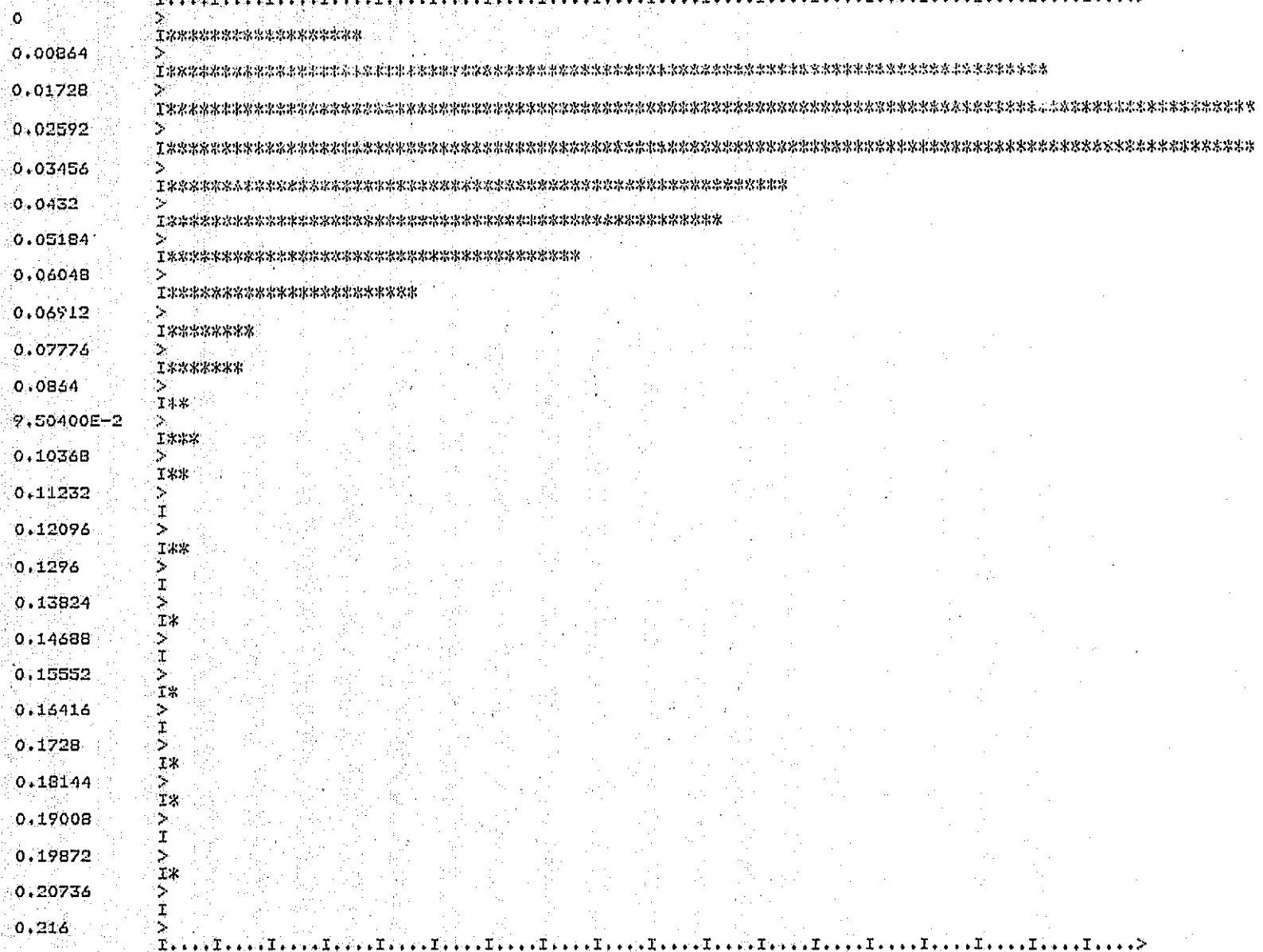
NONMETHANE HYDROCARBONS HISTOGRAM
EACH *=1 HOURLY AVERAGE




MASS LOADING HISTOGRAM
EACH *=1 HOURLY AVERAGE
0
2.73333
5.46667
8.2
10.9333
13.6667
16.4
19.1333
21.8667
24.6
27.3333
30.0667
32.8
35.5333
38.2667
41
43.7333
46.4667
49.2
51.9333
54.6667
57.4
60.1333
62.8667
65.6
68.3333
71.0667
73.8
76.5333
79.2667
82


TEMPERATURE FAHRENHEIT HISTOGRAM
EACH *=1 HOURLY AVERAGE
1
4.82
8.64
12.46
16.28
20.1
23.92
27.74
31.56
35.38
39.2
43.02
46.84
50.66
54.48
58.3
62.12
65.94
69.76
73.58
77.4
81.22
85.04
88.86
92.68
96.5

B SCAT HISTOGRAM
EACH *=1 HOURLY AVERAGE



APPENDIX D

Meteorological Data

EST	20 JUNE 1975 NGU	PGCO	KILBY	VAN	21 JUNE NGU	PGCO	KILBY	VAN	22 JUNE NGU	PGCO	KILBY	VAN
00				78 SW2	/-W7 76/67 C	PC 75 SE4		72 SE	/W7 69/68 1202	PC 72 ESE5		67 SO
01				78 NW5	76/66 C	75 SE4		72 SE	67/58 C	71 E5		66 SO
02				77 N5	74/68 C	74 SE4		70 SE		71 E5		64 SO
03				77 NE5	MW /W7 72/68 C	73 SE4	CLR 74 SW	69 SE	MW /W7 64/58 C	70 SE3	CLR 69 NE	63 SO
04				77 E5	LMW /W7 73/68 1302	74 SE4		70 SE	LMW /W7 64/59 C	69 E2		63 SEO
05				76 E5	LMW /W7H 73/68 0902	75 SE4		70 E	/W7 64/58 1202	69 ESE5		63 SEO
06	LMW /W7H 81/74 0200	—	—	77 E5	/-W7 75/64 0905	75 E7		72 NE	69/62 1302	70 E3		66 SEO
07	MW /W5H 82/74 3602	PC 81 N8	CLR 79 SW	81 E5	MW /W7 76/65 0807	76 E11	CLR 71 SW	75 N5	/W7 74/63 1404	73 SE5	CLR 69 E	70 SE1
08	/W5H 84/73 3605	84 NW6		83 NE5	M	79 E8		72 N1	73/64 1003	CLR 72 S4		75 E3
09	/W4H 85/73 3610	86 N11		83 N1		82 NE12		77 N3	LW /W7 73/60 1702	79 S4		76 E5
10	LW /W5H 84/74 0211	88 N9		84 N2	LW MW7 77/68 1012	83 E12		78 N5	84/61 C	81 S4		80 E5
11	84/75 0212	89 NE9	CLR 85 SW	85 N2	LW MW /W7 79/66 0810	83 E7	CLR 81 N	78 N5	LW /-W7 80/64 0830	81 SE4	LLC 79 S	81 E6
12	LW /W5H 84/73 0110	90 N10		86 N2	79/64 0811	84 E8		79 N3	81/64 0850	PC 82 E4		81 E6
13	84/73 0210	91 NE12		87 N2	LW /-W7 80/61 0912	83 E5		79 N3	83/63 1005	83 SE5		83 E6
14	LW 84/73 0212	92 NE10		87 NE1	/-W7 78/58 0912	84 E8		79 N2	83/62 1205	85 SE5		83 E6
15	7 84/69 0314	92 NE12	CLR 87 N	86 E1	78/57 0810	CLR 84 E8	CLR 82 SE	80 N4	83/61 1502	85 SE10	CLR 87 SE	84 E5
16	LW /W 7 83/70 0112	91 NE6		86 E5	76/56 0810	83 E12		76 N5		84 SE10		83 E6
17	/-W7 84/70 0112	89 N6		84 E5	77/53 0910	81 E15		78 N4	LW /W7 77/62 1310	83 SE10		82 E6
18	81/72 0706	89 N8		83 SE5	/-W7 76/52 1107	79 E10		77 NE4	/W7 79/61 1510	82 SE10		80 E5
19	/-W5H 76/70 0908	84 NE8	CLR 81 NW	80 SE5	73/54 1106	77 E5	CLR 74 E	75 NE9	77/60 1410	79 SE10	CLR 77 SE	77 E4
20		82 SE5		76 S1	/-W7 70/56 1002	75 E5		71 E3	07 74/58 1304	77 SE10		72 E3
21	7 76/69 1402	79 SE5		74 S1	70/57 1003	73 E10		69 E2	72/56 1304	75 SE7		71 E5
22	76/68 1702	77 S4		73 SW1	/-W7 70/57 1004	73 E7		68 SE5	73/58 1604	73 SE5		69 E5
23	76/67 1802	76 SE4	CLR 72 S	72 SW1	70/57 1007	73 E7	CLR 68 NE	68 S5	71/60 1603	72 SE5	CLR 67 SE	67 E5

EST	23 JUNE 1975 NGU	PGCO	KILBY	VAN	24 JUNE NGU	PGCO	KILBY	VAN	25 JUNE NGU	PGCO	KILBY	VAN
00	07 72/60 1704	PC 71 S5		76 E 1	07 74/60 1906	PC 71 S5		67 S 5		CLR 76 SSW 9		72SW5
01	72/60 1604	69 S5		65 E 0	72/61 1906	CLR 69 SSW 5		62 S 5	07 77/67 2135	CY 75 SSW 6		72SW5
02	71/59 1604	68 S 4		64 E 0	72/62 1904	68 SSW 5		63 S 5		75 S5		72SW5
03	I-CO 70/58 1703	67 S3	CLR 62 SE	62 E 0	73/62 2206	68 SSW 6	CLR 64 S	63 S 5	76/70 2005	74 SSW 7	CLR 70 S	72SW5
04	69/58 1501	66 S2		62 E 0	ORF 64/57 2206	67 SSW 6		62 S 5	75/70 2205	73 SW 6		71 S5
05	66/58 1501	CY 65 S3		61 E 0		66 SSW 6		61 S 5	74/69 2305	73 SW 7		71 S5
06	MOD IW7 68/62 1501	66 S3		67 SE 1	74/60 2205	67 SW 5		65 S 5	I-CO 74/69 2305	73 W5		72 S5
07	MOD IW7 74/62 1904	69 SW5	CLR 64 SW	72 SE 2	74/60 2206	70 SW 6	CLR 68 SW	72 S 5	06H 76/69 2406	74 W6	CLR 72 S	74 SW1
08	79/61 2004	PC 76 SW6		76 SE 2	77/62 2206	75 SW 7		75 SW 2	79/70 2404	PC 77 W6		77SW2
09	80/61 2304	79 SW5		77 SE 1	80/63 2210	80 SW 10		78 SW 2	05H 82/70 2202	82 W3		82SW3
10	I-CO7 81/62 2206	82 SE3		80 SE 2	84/64 2404	84 SW 9		81 SW 2	06H 84/69 2402	87 W4		87SW4
11	LCO IW7 83/63 C	84 S10	CLR 80 N	83 S 2	85/65 1905	87 NW5	CLR 83 W	85 SW 3	I-WCH 90/69 C	91 SW5	CLR 89 S	92SW4
12	85/63 C	86 S3		83 S 2	87/64 2306	89 SSW 9		87 S 3	90/66 3604	95 N6		96 S3
13	84/64 0306	87 S8		87 SE 3	88/64 2405	91 SSW 7		91 S 3	91/68 3604	91 NE 6		97SW2
14	I-CO7 82/65 0906	89 S6		88 SE 2	84/69 0504	93 SW 5		93 SE 4	91/69 0705	97 NE 6		96SW2
15	07 84/66 0506	89 SE 8	CLR 85 S	88 SE 2	86/67 0604	92 S 4	CLR 89 S	93 SE 3	90/68 0704	98 NE 7	CLR 92 S	93 S2
16	84/64 0707	89 SE9		87 SE5	86/70 0705	92 SE 8		92 SE 4	05H 89/68 0804	95 NE 7		92 SE3
17	I-CO7 83/62 1506	86 SE9		84 SE 6	86/72 0804	92 SE8		98 SE 5	06H 90/70 1004	93 NE 11		91 SE6
18	07 82/65 1407	83 S 7		82 SE 6	85/68 1307	87 SE 6		84 SE 5	89/63 1305	91 NE 8		88 SE4
19	79/64 1507	81 S 7	CLR 79 SE	79 SE 4	83/67 1506	85 SE 7	CLR 80 S	81 SE 4	85/70 1305	89 NE6	CLR 85 S	85 SE4
20	I-CO7 77/62 1506	79 S6		75 SE 3	80/67 1605	82 S 6		78 SE 2	07 84/72 1504	86 NE6		82 SE2
21	07 76/62 1607	77 S 6		72 SE 3	80/67 1706	80 S 6		76 SE 2	82/72 1605	84 S5		80 S1
22	I-CO7 74/60 1607	75 S8		70 SE 3	78/67 1604	78 S6		74 SE 1	82/72 1705	82 S5		78 S2
23	07 74/60 1706	73 S6	CLR 70 S	69 SE 2	79/68 1810	77 S 6	CLR 74 SE	73 SE 1	ICO7 81/71 2005	81 S5	CLR 76 S	77 S1

26 JUNE 1975 — 27 JUNE — 28 JUNE

EST	NGU	PGCO	KILBY	VAN	NGU	PGCO	KILBY	VAN	NGU	PGCO	KILBY	VAN
00	/WD7 81/71 2007	CY 79 SSW2		74 SW2	MW /WDLH 75/70 C	CY 77 E4		73 S1	LWH /WL? 77/?? 10??	CY 78 E6		75 SE2
01	80/71 2006	78 SSW5		74 SW1	74/69 C	77 E4		73 S1	77/69 1007	78 E6		75 2
02	MW /WD7 79/71 2004	77 SSW2		74 SW2	MW /WD7 74/69 C	PC 77 E4		73 S1	LW /WD7 77/70 0904	78 E6		76 2
03	78/71 1702	76 S2	CY 72 SE	74 SW2	/WD7 73/68 C	76 E4	CLR 70 S	72 S1	LWH /WLH 74/71 1304	R 73 SE		73 1
04	/WD7 78/71 2002	76 S3		73 SW1	LW /WD7 73/68 C	76 E4		71 S1	/WD7 74/70 1303	75 E6		73 5
05	LWLH 77/70 1903	74 S3		72 SW1	LW /WDLH 72/68 C	75 E4		70 S5	LW WDRW-H 75/71 1102	R 75 E6		72 5
06	76/71 1402	75 SE2		73 SW2	/WDSH 76/75 C	75 NE4		72 S5	74/71 1204	75 SE6		72 1
07	73/73 1402	77 SSW5	PC 74 S	75 W3	LW /WLH 80/71 1004	77 E6	CLR 72 E	78 S1	LWH MW 7R- 75/72 1204	75 SE6	R 72 SE	73 2
08	83/73 C	PC 80 SSW4		75 W3	7 81/68 1105	80 S5		79 S1	74/72 1003	CY 75 E7		73 4
09	84/74 3305	84 SE7		84 W2	LW /WD7 83/68 0704	83 SE7		80 SE1	73/72 0703	76 E9		75 4
10	LWHW /WDLH 83/74 0704	CY 76 N4		86 W2	83/71 0804	86 SE6		82 SE2	LWH MW7 79/72 0904	80 SE6		75 5
11	LWHW /WDLH 84/74 0504	87 E8	CY 84 SE	85 W1	LW /WD7 84/70 0704	87 S9	CLR 83 S	84 SE2	LWW MW7 80/72 1105	80 E12	CY 78 SE	76 4
12	LWHW /WDLH 84/71 0709	88 S7		85 E2	LWHW /WD7 84/70 0710	87 SE7		84 SE4	78/72 0705	81 ENE12		76 5
13	LW MW LH 83/76 0704	89 ESE12		86 E1	84/72 0809	87 SE9		84 SE5	LWH MW7RW- 79/72 0705	81 ESE10		80 6
14	82/75 0704	88 SE8		86 E2	LW /WD7 83/72 0805	87 SE8		85 SE5	7 79/72 0708	82 E8		80 6
15	80/74 0707	87 SE11	PC 83 SE	84 NE4	LWHW /WD7 83/68 1308	85 SE15	CLR 83 SE	83 SE1	78/72 0804	82 E11	CY 80 E	79 8
16	80/74 0904	86 SE9		82 SE5	84/69 1109	87 SE13		81 SE5	LWW MW7 80/73 0808	82 E15		77 8
17	81/74 0704	84 SE11		81 E5	84/68 1411	85 SE11		85 SE5		82 E13		77 5
18	LWHW /WDLH 81/69 1104	83 SE8		80 SE3	LWHW /WD7 82/68 1212	84 SE11		84 SE4	LWW MW7 79/72 0704	82 E13		79 5
19	78/72 0905	82 SE7	PC 78 SE	79 SE4	LWHWW /WD7 84/68 1208	82 SE10	PC 78 SE	80 E4	77/70 0703	80 E13	CY 77 NE	77 5
20	MW /WDLH 78/72 0803	81 SE7		79 SE2	LWHW /WD7 78/68 1305	80 SE10		77 E3	77/70 0708	78 E10		75 3
21	MW /WDLH 77/72 0802	79 E7		76 SE2	MW /WD7 78/68 1204	79 SE8		73 E2	74/68 0807	78 E7		74 2
22	76/71 C	79 E7		74 S2	77/68 1104	79 SE8		75 E2	LW MW7 76/69 0904	77 E9		74 2
23	MW /WDLH 76/71 0902	78 E5	CLR 72 N	74 S1	77/68 1102	79 E7	CY 72 N	75 E2	MW7 76/?? 0804	76 E7	CLR 71 NE	73 SE 3

EST	29 JUNE 1975 NGL	PGCO	KILBY	VAN	30 JUNE NGL	PGCO	KILBY	VAN	1 JULY NGL	PGCO	KILBY	VAN
00	07 76/17 0908	CLR 76 N5		72 SE 2	/-W7 77/[illegible] 0212	CY 73 N2		73 SE [illegible]		CLR 72 NE 14		69 NE3
01	LW7 75/69 0706	75 NE 5		72 2	/W7 76/[illegible] 0312	76 N 5		73 E 3		72 NE 5		69 3
02	LW HW7 75/67 0506	CY 74 NE 6		72 3	LW /W7 75/[illegible] 0310	75 [illegible] 7		72 E 3		71 NE [illegible]		68 2
03	75/68 0407	PC 72 NW		72 3	/-W7 74/64 0214	75 N 11	CLR 68 NW	72 SE 3		70 NE 10	CLR 65 N	67 3
04	LW7 75/69 0507	PC 75 N3		72 2	LW7 74/25 0312	74 N 7		71 E 3		69 NE 6		66 4
05	LH 74/70 0508	74 NE 6		73 2		74 NNE 9		72 E 3		PC 69 ENE 8		66 4
06	LWW HW/H 76/70 0412	CY 75 NE 6		74 2	LWW /W/H 74/[illegible] 0314	74 NE 12		72 NE 3		69 NE 9		67 4
07	LWW HW7 78/71 0314	76 N 12	CY 74 N	75 3	76/67 0315	75 NE 6	CLR 71 N	74 4		70 NE 11	CLR 67 N	69 5
08	77/71 0312	79 NE 13		77 2	LWW /W7 76/67 0214	76 NE 15		75 4		73 NE 13		70 6
09	LWW HW7 79/71 0910	81 NE 13		78 2	77/67 0215	PC 78 N9		76 6		74 NE 13		72 5
10	80/71 0513	83 NE 12		80 4		79 NE 13		76 6		77 NE 14		73 6
11	LW HW7 81/71 0512	85 NE 10	CY 80 N	81 4	LW /W7 80/[illegible] 0110	81 NE 10	CY 79 N	78 6		78 N 13	CLR 76 N	74 6
12	LW HW 7 79/68 0208	87 NE 11		82 5	LH 80/[illegible] 0216	83 NE 17		77 6		80 N 16		75 7
13	LW HW7 81/71 0611	84 NNE 5		83 6	81/67 3617	83 NE [illegible]		75 6		82 N 7		78 4
14	81/71 0810	87 NE 6		82 7	LW /-W7 81/[illegible] 0215	83 NE 10		73 5		83 NE 9		79 5
15	LH 81/71 0709	81 NE 10	CY 82 NE	82 5	80/[illegible] 0214 +20	83 NE 9	PC 80 NE	78 5		83 E 10	PC 79 NE	79 6
16	LWW HW/H 79/71 0710	81 NE 10		82 5	LW /W7 79/67 0510 +16	CY 82 NE 10		77 5		83 NE 9		79 6
17	LW HW/H 79/70 0608	84 NE 6		80 6		80 NE 10		76 5		83 NE 10		79 7
18	LWW/ /W/H 79/69 0509	82 NE 7		80 7	LW/H 75/25 0510 +17	78 NE 15		75 5		81 NE 11		79 6
19	77/69 0505	79 NE 6	PC 75 NW	77 7	LW SH 74/64 0512	76 NE 10	PC 74 NE	73 4		78 NE 11	CLR 75 SE	75 6
20	LWW/ W/H 76/68 0510	78 NE 9		74 6	LW7 74/62 0410	75 NE 9		72 4		75 E 7		71 6
21	LW /W7 76/69 0606	77 NE 8		73 6	73/60 0410	74 NE 9		71 3	07 71/59 1302	78 SE 4		66 3
22	75/68 0508	76 NE 6		73 4	73/62 0312	73 NE 9		70 2	74/58 C	71 S 4		62 4
23	74/66 0106	76 NE 5	CY 72 NNE	73 SE 3	/-W7 73/65 0414	73 NNE 7	CLR 69 N	70 NE 3	68/57 C	73 S 4	CLR 61 SE	60 NE 4

2 JULY 1975 | 3 JULY | 4 JULY

EST	NGL	PGCO	KILBY	VAN	NGL	PGCO	KILBY	VAN	NGL	PGCO	KILBY	VAN
00	07 68/56 C	PC 65 SW5		60 E 3	1/7 72/59 1704	PC 71 SSW 7		77 NE 0	LCW /GD 7 74/64 E 1003	PC 77 E 6		74 S 1
01	68/58 2404	CLR 63 SW5		60 E 4	74/58 2007	70 S 8		77 NE 0	LCW /GD 7 74/64 E 3310	74 E 6		72 S 2
02	68/58 2404	72 W 4		60 E 4	/GD7 74/58 2108	CY 70 SW 8		77 N 1	75/64 E 3410	75 E 5		73 S 3
03	68/59 2404	71 W 6	CLR 57 W	60 S 4	72/57 2109	67 WSW 8	CLR 66 S	67 N 2	LCW MCW /GD 7 74/64 E 0201	71 E 4	CLR 70 N	72 SW 3
04	68/57 2506	71 W 3		59 W 3		69 SW 9		67 N 2	LCW MCW /GD 7 73/64 E 0207	74 S 4		71 SW 3
05	68/56 2608	70 W 5		60 W 3	LCW /GD7 70/58 1904	67 W 9		66 NE 2	74/66 E 0801	74 S 4		70 SW 2
06	70/54 2606	71 W 6		62 W 4	MCW /-GDH 71/59 2006	67 SW 5		66 NE 2	74/66 C	74 W 4		71 SW 2
07	73/56 2908	77 NW 8	CLR 64 N	67 W 4	/-GDH 73/62 2107	70 SW 5	CLR 69 NW	68 NE 3	/-GDH 73/68 C	75 SW 4	CY 70 NW	72 SW 2
08	LH 77/55 2910	73 W 11		73 W 5	MCW /-GDH 78/62 2410	PC 75 WSW 3		72 N 7	MCW /-GDH 73/62 E 3503	77 NW 4		79 SW 4
09	LHK 80/57 2908	77 NW 10		76 NW 7	/-GDH 81/63 2610	80 W 7		77 N 6	/-GDH 79/69 E 0304	80 NW 3		80 SW 4
10	/-GD7 81/55 2908	81 NW 8		79 NW 7	85/65 2508	85 NW 7		82 N 7	80/70 E 0206	83 N 4		84 W 4
11	83/52 2608	84 NNW 11	CLR 80 N	82 NW 7	87/67 2504	90 NW 7	CLR 86 NW	87 N 5	/-GDH 82/71 E 0206	86 N 7	CLR 84 SE	84 NW 4
12	/-GD7 84/52 2706	78 WSW 7		84 NW 7	90/68 2308	92 NW 7		90 N 5	82/71 E 0206	89 E 7		78 NW 6
13		88 NNE 7		78 NW 7	/-GDH 93/64 3109	94 NW 9		92 N 5	82/70 E 0307	97 N 10		88 NW 7
14	/-GD7 86/52 3208	90 NNE 11		88 NW 5	/-GDH 93/67 3006	96 NE 6		92 NE 5	MCW /-GDH 81/68 0509	87 N 12	Rain	86 NW 5
15	87/52 3006	91 NW 5	CLR 88 NW	88 NW 7	5H 93/72 3006	97 SE 3	H 91 NW	94 NE 4	NTH (TH)	R 80 NW 5	R 70 NE	80 NW 4
16	87/52 3006	90 N 6		88 NW 7	MCW /-GD4H 93/72 3108	96 N 6		93 NE 4	LCW MCW 65H 74/69 0904	CY 76 SE 6		72 NW 4
17	87/58 C	91 N 6		89 NW 5		94 N 6		92 NE 4	MCW 5H 74/68 0502	R 75 SE 5		72 NW 6
18	84/55 3102	90 NW 5		88 NW 4	/-GD3H 90/72 3006	93 NW 5		91 NE 3	STRW-M 74/67 1603	74 SE 5		71 NW 5
19	84/54 C	86 NW 5	CLR 82 S	87 NW 4	/-GD3H 89/75 2904	90 NW 5	H 86 NW	87 NE 2	LCW MCW 2½ R-FH 72/68 1308	71 SE 5	R 68 ESE	69 NW 3
20	80/58 1202	80 S 5		81 W 2	87/77 2403	89 NW 5		82 NE 2	72/72 0803	71 SE 7	Rain	68 NW 2
21	76/55 1506	77 SS 5		73 S 1	/GD7 82/68 0318	83 N 5		81 E 1	SF 70/66 C	CY 71 E 7		68 NW 2
22	74/55 1804	74 SS 5		70 S 0	79/72 E 0110	80 NE 5		78 E 2	72/67 C	71 NW 4		68 N 6
23	0/7 72/58 1502	72 S 5	CLR 67 S	68 S 0	77/64 E 0706	75 E 8	CLR 74 N	76 E 0	5H 74/68 0104	71 W 4	CY 68 W	69 NE 5

5 July 1975

6 July

7 July

EST	NGL	PGCO	KILBY	VAN	NGL	PGCO	KILBY	VAN	NGL	PGCO	KILBY	VAN
00	LW MW5H 74/68 3504	CY 72 NW5		69 E3	07 72/67 2402	PC 71 SW2		67 C	MW /W7 77/68 2304	CY 76 WW2		73 C
01	LWW MW4GFH 73/69 C	R 72 NW5		69 SE3	72/68 C	70 S2		67 C	MW /W7 76/68 C	76 S3		72 C
02	LWW 2RW-GF 77/68 3409	72 NW4		69 SE4	05H 72/67 2102	70 WSW2		62 C	MW /W7 76/68 C	R- 75 S4		70 C
03	LWW 2½TRW- 70/66 3512	70 N5		69 E4	72/67 2406	69 SW3	CY 65 S	66 SE1	LW MW7 74/69 1504	CY 74 SE4	CY 69 SE	69 C
04	71/67 3511	69 N5	R 67 W	68 N1	71/66 2002	68 SW4		66 SE3	MW7 74/67 C	74 SE5		70 C
05	2½RW- 72/68 0406	69 N4		67 NE1	MW 5H 70/66 C	CY 68 SE3		65 SW4	MW /W6H 73/68 1403	74 SSE5		70 C
06	LWWW 2½H 72/66 0307	69 NE4		66 NE1	36FH 74/70 C	68 SSW2		65 N3	LWMW /W6H 74/67 1303	74 SE5		71 C
07	LWWW 6H 73/64 0306	70 N4	R 67 NE	66 NE1		70 SW6	CLR 68 S	68 N2	MW 6H 75/68 1304	75-SE5	R- 70 SE	72 E1
08	LW MW6H 76/67 0408	CY 72 N3	Road	67 NE1	0CH 77/70 2504	CLR 73 SW5		78 SE1	LWMW W6RW-H 76/68 1205	R- 76 SE7		73 E2
09	LW /W6H 76/68 0208	73 N6		69 NE2	/-W6H 80/69 2505	78 SW5		78 SE1	75/69 0904	76 SE8		74 SE3
10	LWMW /W6H 78/68 3609	73 N3		71 NE2	82/69 2709	PC 82 NW5		81 SE4	LW 2TRW- C	73 SE4		69 SW3
11		75 N5	CY 76 NE	75 NE3	84/69 2505	CY 85 W4	PC 82 S	84 SE4	LWW 4RW- 73/70 1804	74 S5	R 70 SE	71 W4
12	LWW 7 75/65 0608	75 NE7		78 E4	LW /-W6H 84/68 2506	87 SW9		86 E4	75/70 1805	75 S6		73 NW3
13	LWMW /W7 78/65 0110	78 NE5		77 E4	LW07 87/68 2408	89 SW6		88 N3	4T 78/73 1805	CY 76 S6		77 N4
14	LWMW /-W7 81/71 0108	80 N5		80 E4	LW /W7 83/68 2108	89 SW10		88 NE4	4H 79/70 1905	77 SW5		79 NW4
15	CH 81/70 0208	PC 83 NW5	PC 71 NW	83 SE3	LW /-W7 89/68 2109	89 SW5	PC 86 SW	89 N3	LWW MW6H 81/72 1702	79 SE7	CY 77 SW	80 W5
16	81/69 0107	84 N7		83 SE4	LW /-W7 89/68 2408	88 SW7		89 N4		80 S7		80 SW5
17	LWMW /-W6H 80/71 0404	80 N7		83 NE1	87/68 2108	87 SW7		88 N3		82 SW5		84 SW5
18	MW /-W6H 79/71 0704	83 NE6		82 SE2	LWMW 80/69 2010 /W7	85 SW7		86 NE3	LWMW 80/73 3604 /W7	82 W4		83 SW6
19	0CH 74/68 0904	81 E6	PC 77 SSE	79 SE3	84/68 1907	83 SW5	CY 80 SSE	84 NE3	78/73 0602	81 W4	PC 77 NW	81 S3
20	/-W6H 74/68 1002	78 E6		74 SE3		81 SW6		81 NE2	78/73 3403	79 W4		78 S2
21	07 74/68 1101	76 SE6		72 SE1	MW /W7 82/68 1906	80 SW6		79 NE1	MW /W7 78/73 3402	78 W4		76 S3
22	73/67 1501	75 SE6		70 SE5	MW /W7 81/68 2207	79 SW6		76 E0	/-W7 78/72 2701	77 W4		75 S4
23	72/66 C	73 S5	CY 68 SE	68 SE5	79/69 2708	78 SW5	CY 72 W	76 E0	CH 77/72 C	76 SW4	CLR 72 S	73 S3

8 JULY 1975 — 9 JULY — 10 JULY

EST	NGU	PGCO	KILBY	VAN	NGU	PGCO	KILBY	VAN	NGU	PGCO	KILBY	VAN
00	L-OKH 74/72 2302	CY 75 SW4		72 SW 2	LOKH 74/72 C	PC 77 S 3		73 M 1	LOWT 78/72 2106	PC 77 SSW9	Rain	75 C
01	74/72 2303	PC 74 SSW 2		72 SW 1	76/73 1704	76 SSW 4		72 ↓ 1	LOWT (NNW) 150	74 SSE 2		73 C
02	74/70 C	74 SW 5		71 W 2	LOSH 78/71 1905	76 SSW 7		73 ↓ 1	LOW 7/70 1905	75 SSW 7		72 SW2
03	73/70 1201	73 W 5	Fog 70 S	71 W 1	77/74 1905	76 SSW 4	CLR 71 SE	73 1	74/73 2004	75 SW 8	CY 73 SW	73 ↓ 2
04		CY 72 SSW 5		71 W 2	LOH4FH 78/74 1804	76 SSW 7		73 1	GGH 74/72 2210	75 SW 8		73 2
05	LOW 3F 74/71 2203	72 SW 4		71 S 1	LOW3GFH 77/74 1904	CY 75 SSW 5		74 2	LOWHW 1G3GFH 76/72 2306	CY 74 SSW 8		72 2
06	LOW 4F 75/72 2404	72 SW 2		72 S 1	LOW2GFH 77/74 1906	75 SW 6		74 1	LOW 1G4FH 75/71 2206	73 SW 6		72 3
07	LOW 4FH 2703	74 SW 4	CY 70 SE	72 S 2	78/74 2008	76 SW 6	CY 74 SW	76 1	LOW 3H 74/70 2210	73 SW 5	PC 72 SW	72 4
08	80/75 C	77 SE 4		80 S 3	2KH 80/72 2105	78 SW 6		79 1	L-W3H 78/70 2208	PC 75 SW 8		76 4
09	80/75 3504	80 NW 3		81 SE 3	80/72 2003	PC 81 SW 8		79 1	80/72 2208	77 SSW 12		79 3
10	LOW 4H 80/74 3405	83 NW 3		85 SE 6	L-W4H 84/76 2007	95 SSW 5		83 ↑ 2	84/73 2007	81 SW 9		82 3
11	84/73 0202	PC 85 SE 3	CLR 82 N	86 SE 2	3H 86/72 2006	87 SSW 5	CLR 83 W	86 M 2	4H 86/72 2108	85 SSW 4	PC 82 SW	85 3
12	84/74 0506	87 SE 3		86 SE 4		89 SW 9		89 SE 3	LOWH 88/71 2308	87 SSW 6		88 5
13	84/75 0807	87 NE 7		85 S 4	LOSH 90/75 2109	90 SW 7		90 E 4		89 SW 7		89 6
14	LOWH 5TH 1308	R 83 S 12	Rain	79 SE 3	LOWH 90/72 2110	71 SW 12		91 E 5	90/75 2110	89 SW 7		90 6
15	LOWHW 1G6TH 80/71 (GRAPEVINE) 1413	77 E 8	PC 81 NW	72 S 3	LOWHW 1-W5H 90/72 2112	71 SW 13	CY 87 S	91 NE 6	5H 90/75 2010	90 SW 13	CY 87 S	91 6
16	LOW 4TH 77/74 0404	PC 80 SE 6		76 S 3	LOW 5H 91/75 2110	71 SW 10		92 E 3	6H 90/75 2112	70 SW 10		91 5
17	LOW 1G5TRW-H 79/75 0903	82 S 5	Rain	78 M 2	LOW 6TH 2108	70 SW 7	Rain	90 SE 3	90/75 2010	90 SW 9		91 5
18	LOWHW 4TR-H 78/72 1504	R 81 SW 4	Sand	77 ↓ 2	5TH 81/72 2506	99 SW 10		85 S 4	LOW 1G6H 85/73 2012	89 SW 9		88 5
19	LOWH M4JFH 1302	CY 79 W 4	PC 70 SSE	77 1	LOW 1G5H 1804	CY 84 S 6	CY 81 S	79 S 2	1G6H 84/74 2010	86 SW 9	CY 82 S	85 3
20		77 S 4		77 1	LOW 1G6TH 81/74 1303	83 S 6	Rain	77 C	HW4H 85/74 2110	85 SW 7		83 2
21	LOW 1-W1FH 77/74 1101	77 S 4		75 1	LOWH 6TRW- 81/74 2110	R 82 S 8		78 C	M4H 5H 84/75 2112	84 SW 6		82 4
22	L-W4FH 77/74 C	77 S 4		74 ↑ 0	LOWH 1G6RW- 79/75 2105	R 90 S 6		77 C	M4H 6RW-H 85/75 2112	PC 93 SW 9		91 ↑ 3
23	76/74 1301	77 S 4	CLR 70 S	74 M 0	LOW 1W1 79/72 1904	PC 79 S 9	CY 72 SE	76 C		90 SW 10	R 73 S	78 SW 3

11 JULY

EST	NGU	PGCO	KILBY	VIAN	NGU	PGCO	KILBY	VIAN	NGU	PGCO	KILBY	VIAN
00	LOD STKW-H 74/72 2113	R 77 SW 10		74 SW 3								
01	GH 77/71 2[illegible]2	74 SW 10		71 S 6								
02	7 74/70 2303	73 SW 10		70 SW 4								
03	GH 74/70 2110	72 SW 10	R 70 SW	70 ↓ 3								
04	LOD ERW-H 73/69 2410	71 SW 10	Rand	70 4								
05	LOD 5SFH 73/70 1702	R- 72 SW 6		70 3								
06	LOMD 4GFH 77/69 2004	CY 71 SW 5		69 4								
07	LOD 3RA-GF 76/68 2306	R 71 W 4	R 68 S	69 4								
08	LOMD 3GFH 73/70 2005	72 SSW 4		69 3								
09	4GFH 74/71 1802	CY 72 S 3		71 3								
10	76/72 1902	75 S 3		75 ↑ 3								
11	LOD 2½GFH 77/71 C	R 76 SW 4	R 73 S	77 SW 4								
12	2½R-H 77/70 1503	77 SW 4		end								
13	2½RA-H 75/70 C	75 NW 3										
14	LOMD 3R-H 76/71 0904	CY 75 NE 6	R and									
15	3H 78/72 0106	77 E 9	CY 77 ENE									
16	LOMD 4H 79/71 0106	78 SE 7										
17	78/71 1506	78 S 6										
18	77/71 1706	R 76 S 5										
19	LOD 4R-H 75/70 1708	73 S 5	R- 72 SE									
20		73 S 5										
21	3R- 72/70 1606	73 S 5										
22		72 SE 5										
23	5R-F 74/71 1706	R 73 S 5										

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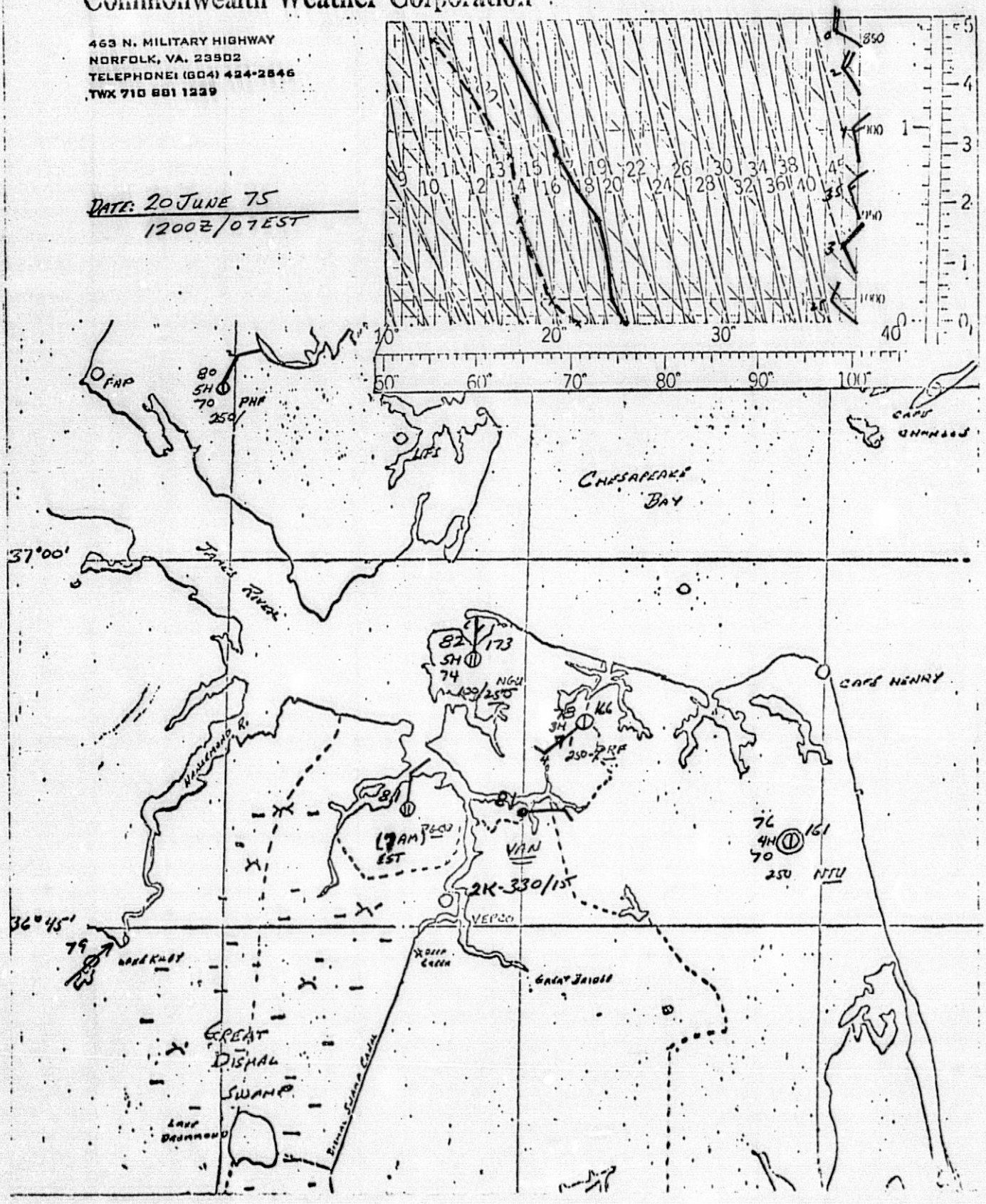

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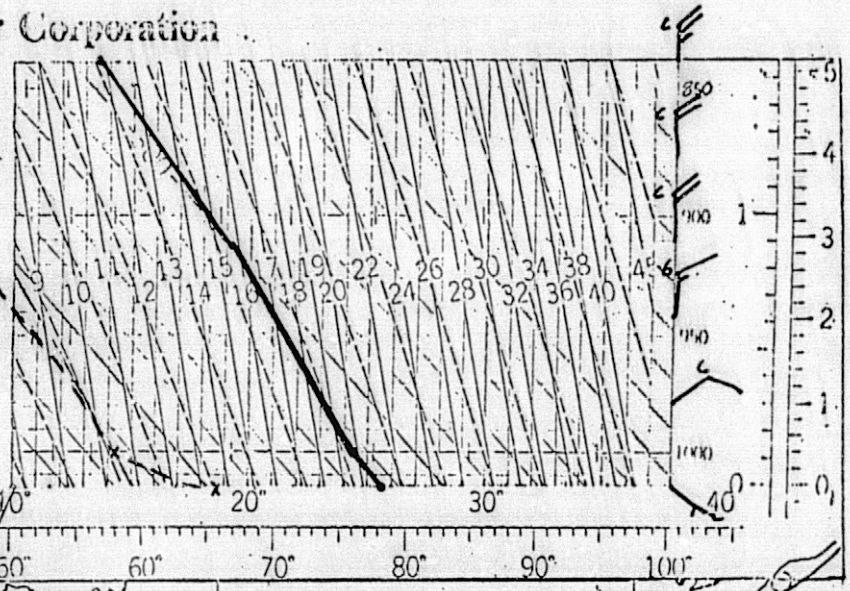
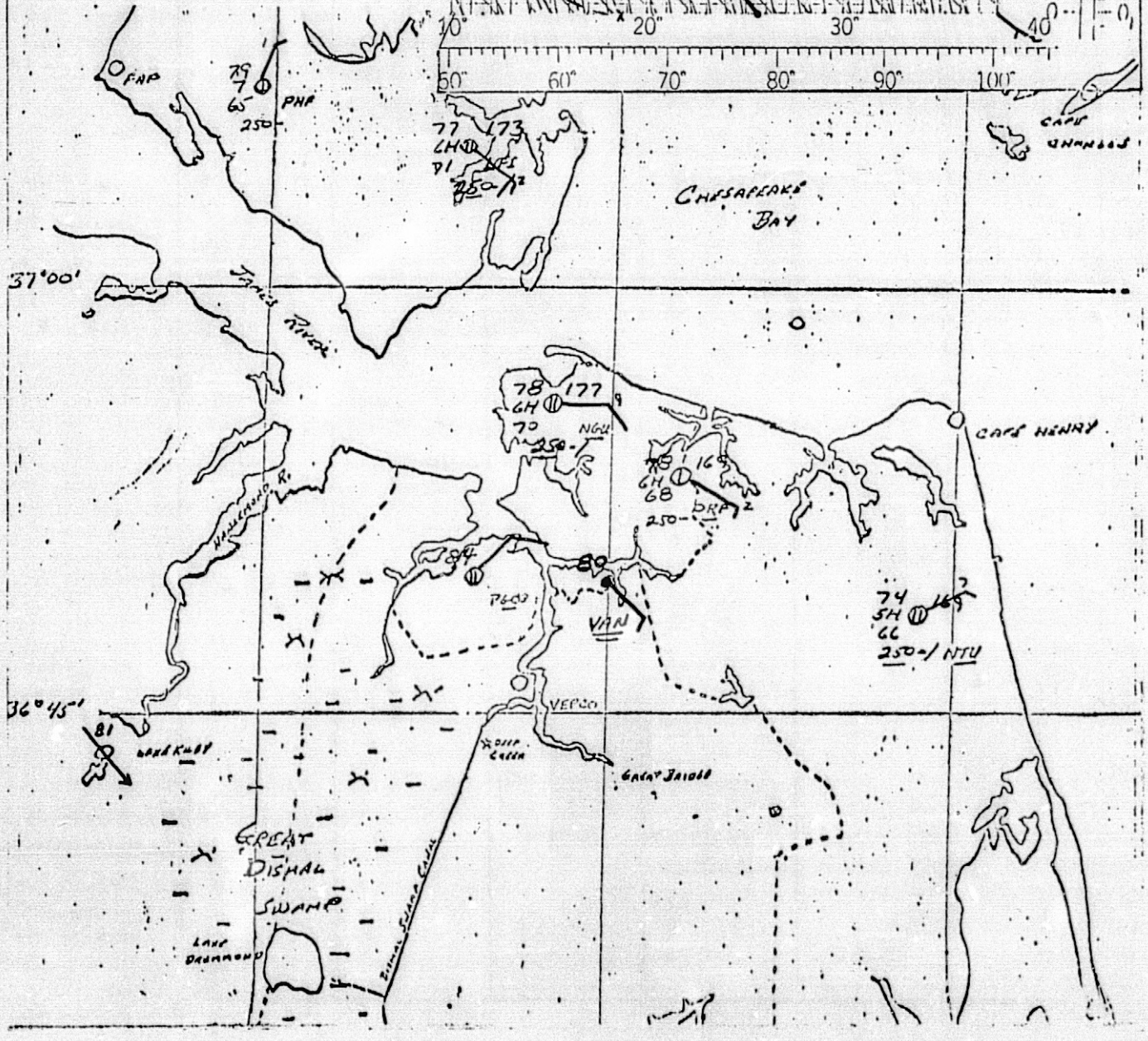
0000Z / 1900 EST





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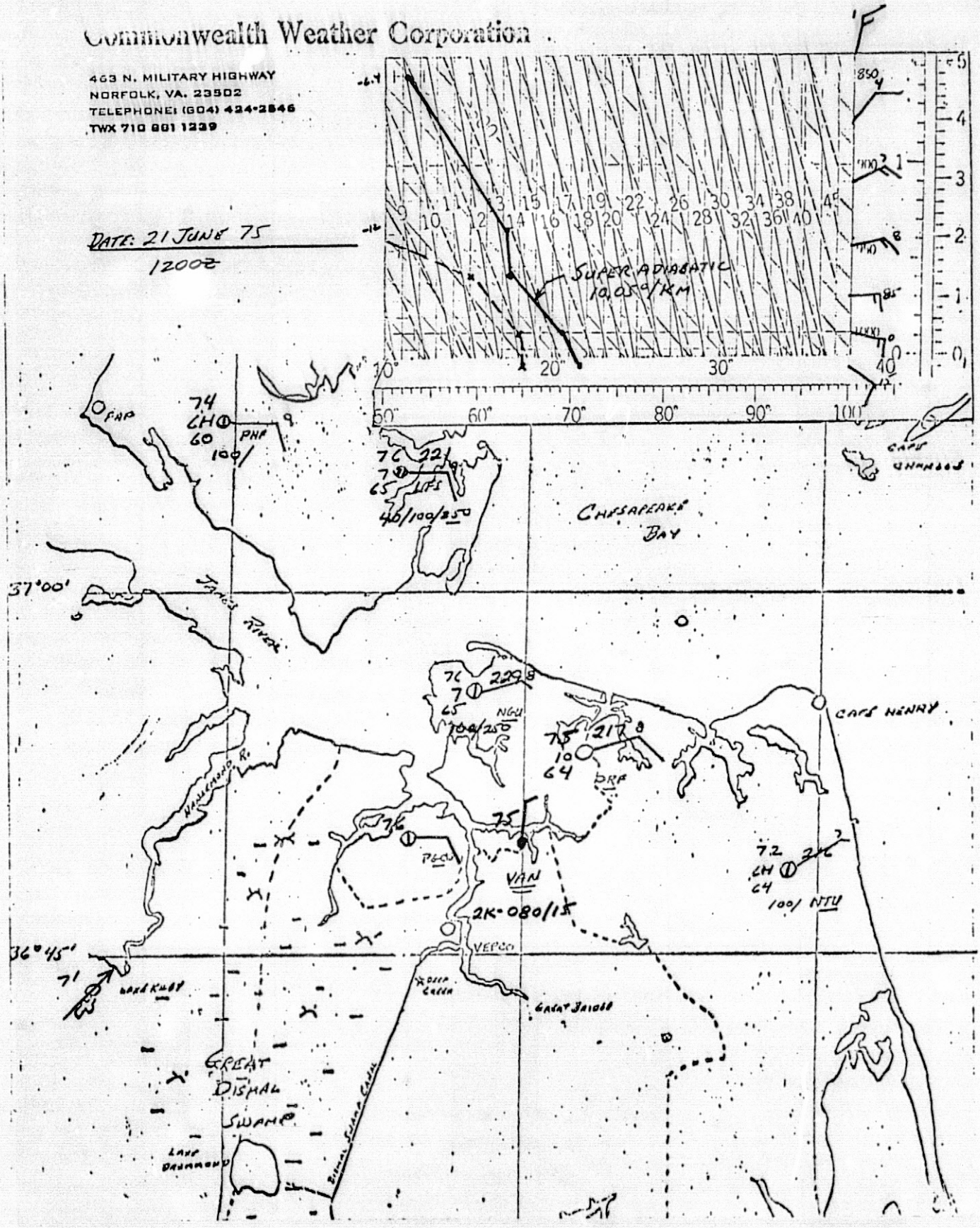

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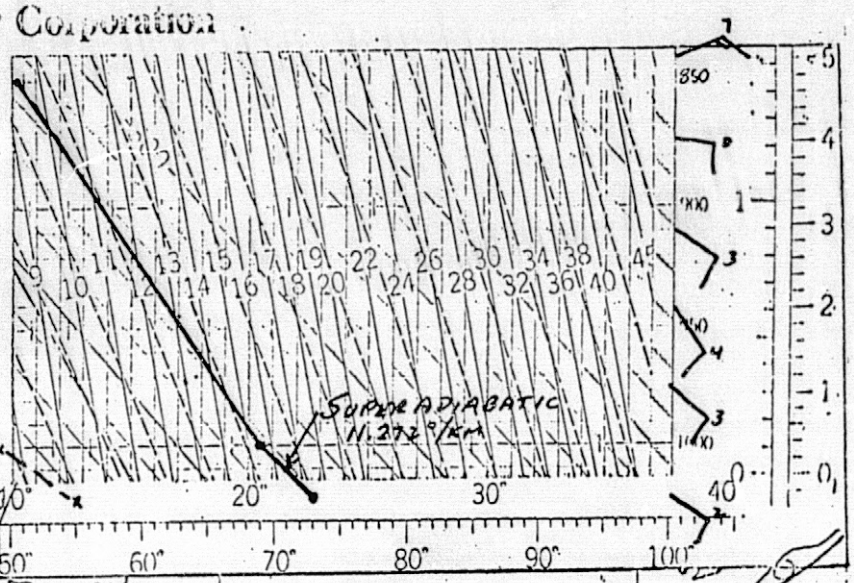
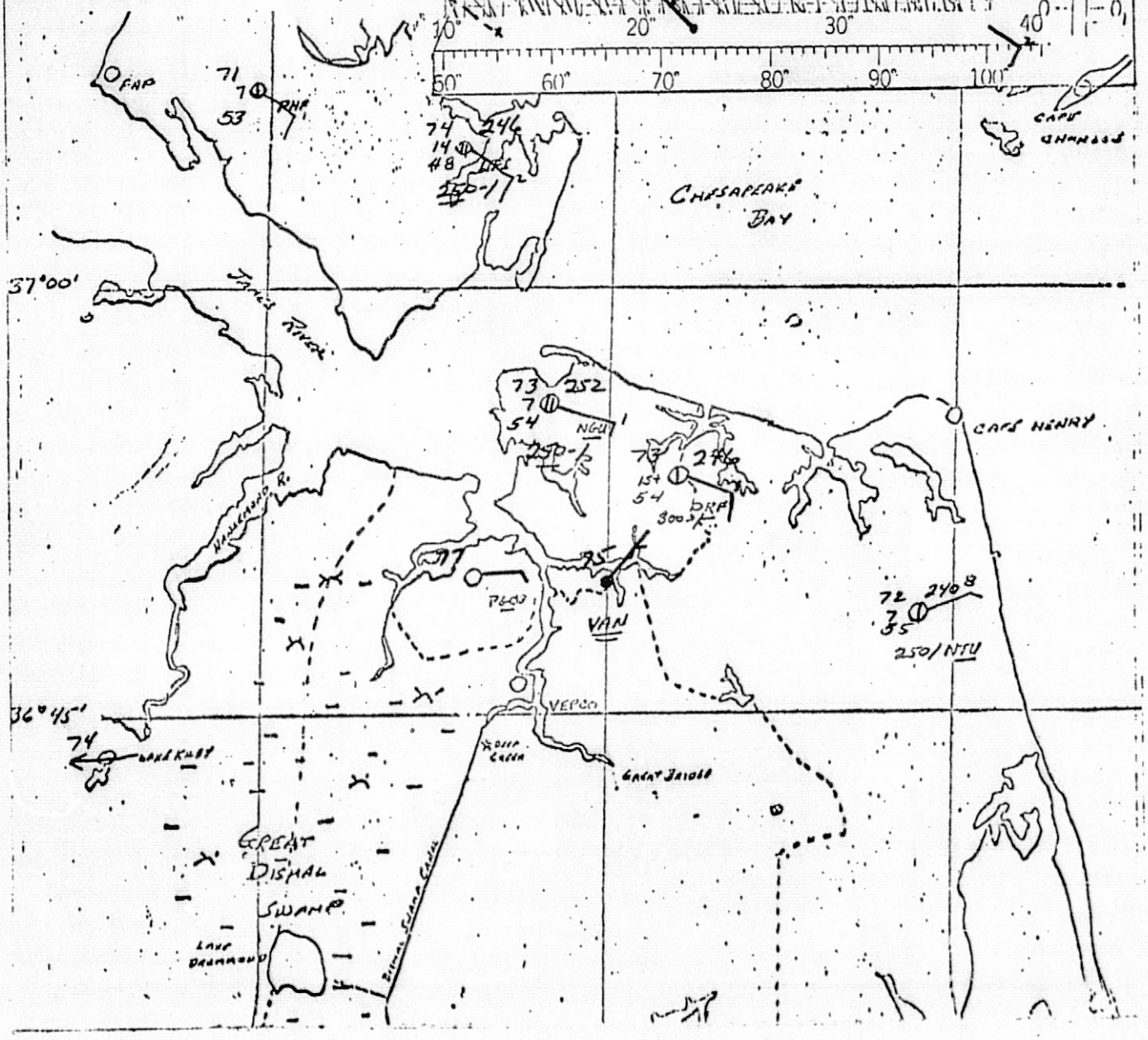
00002





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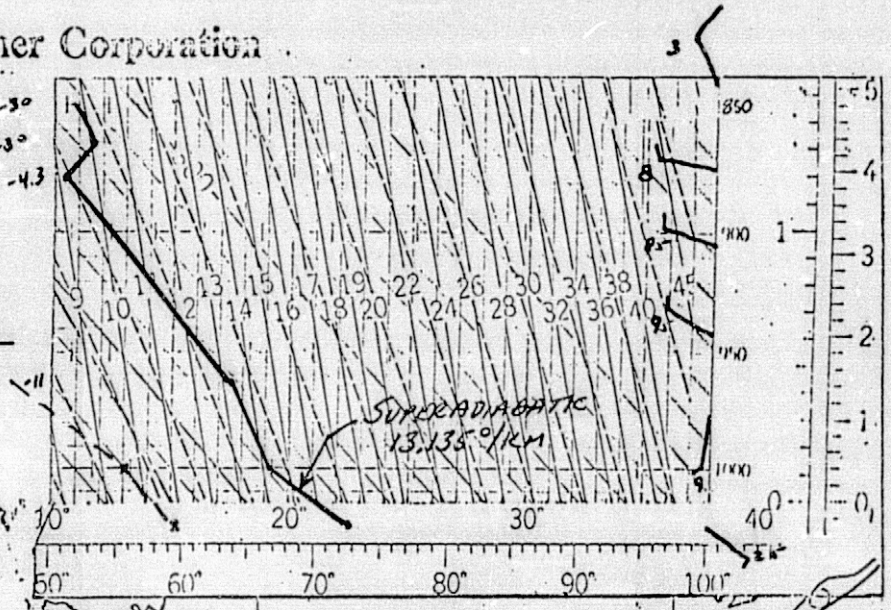

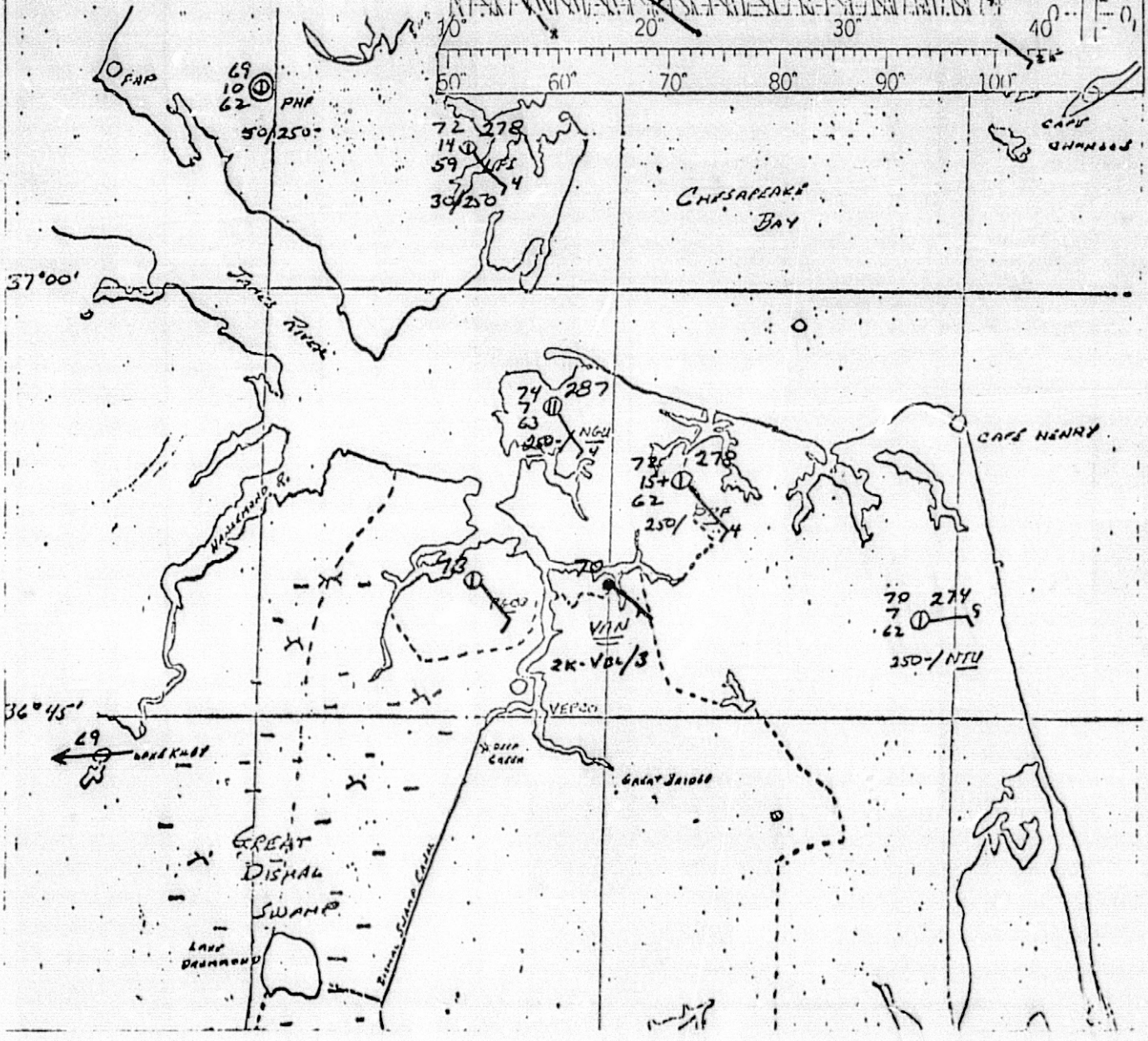

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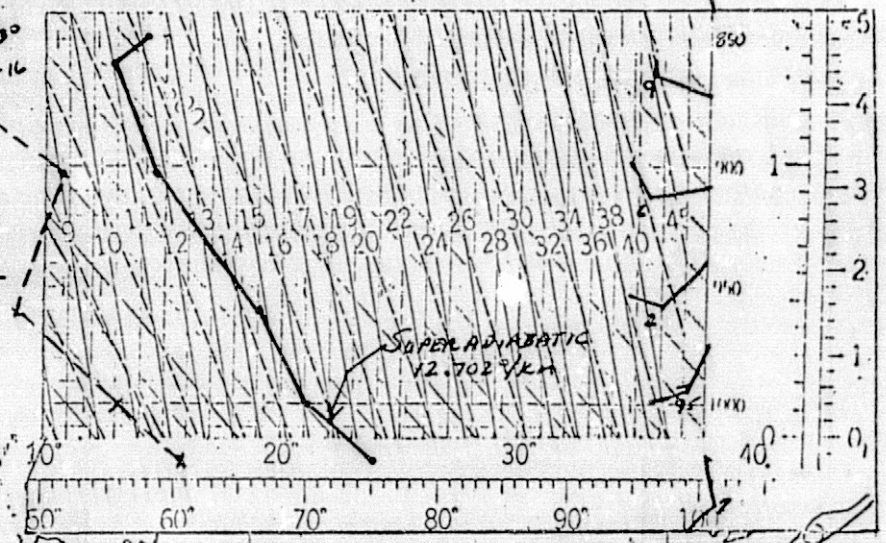

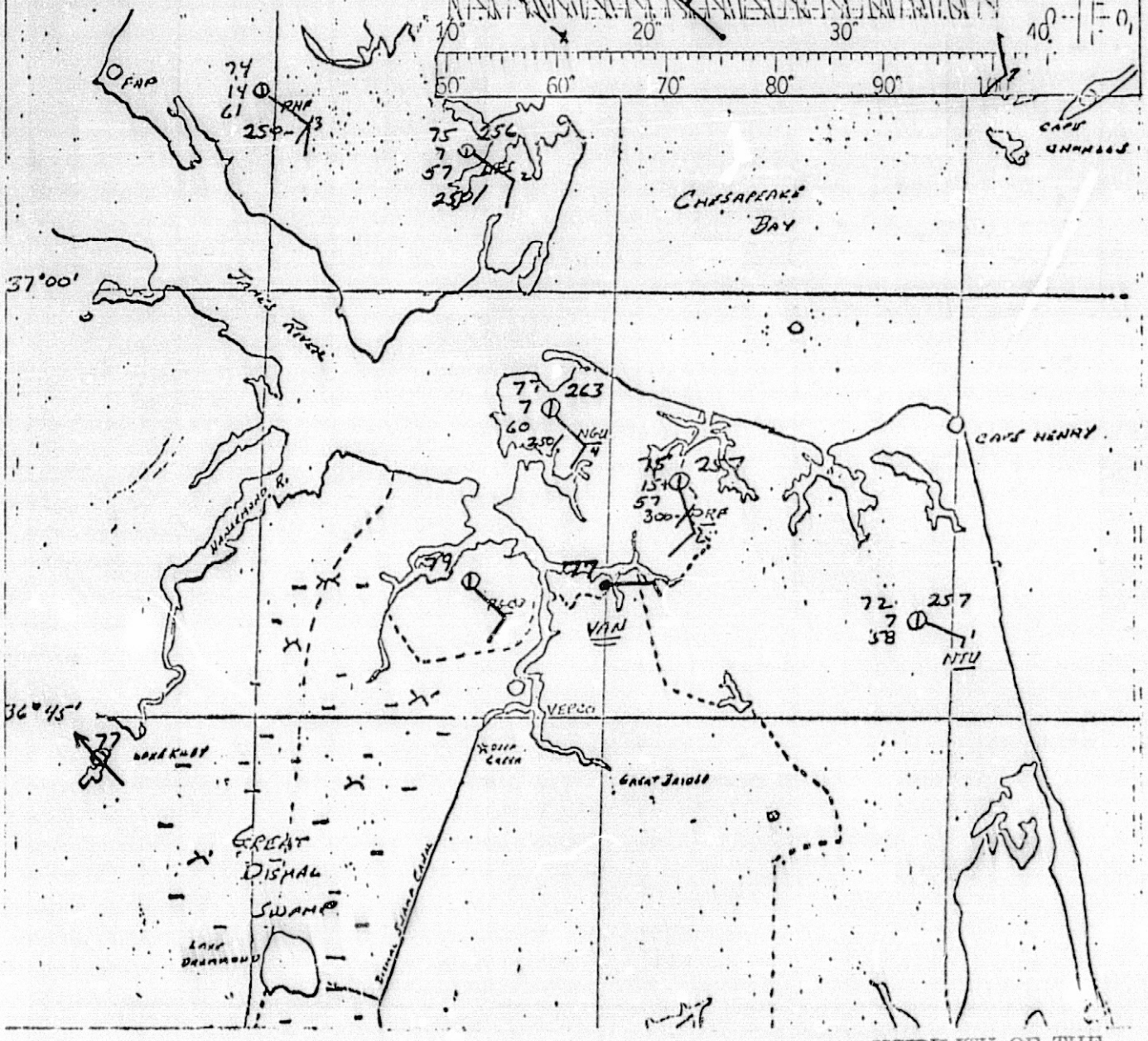

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463 N. MILITARY HIGHWAY
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TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 23 JUNE 75
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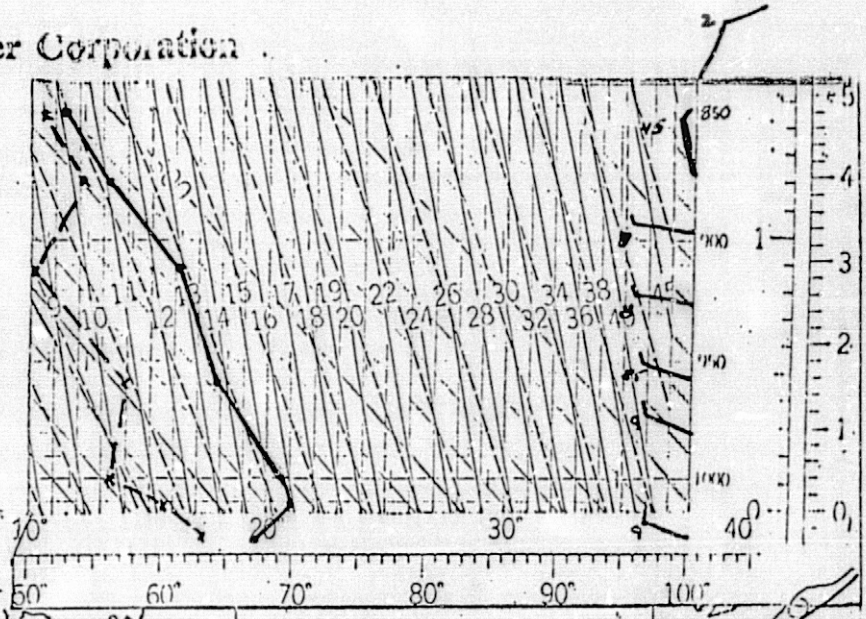

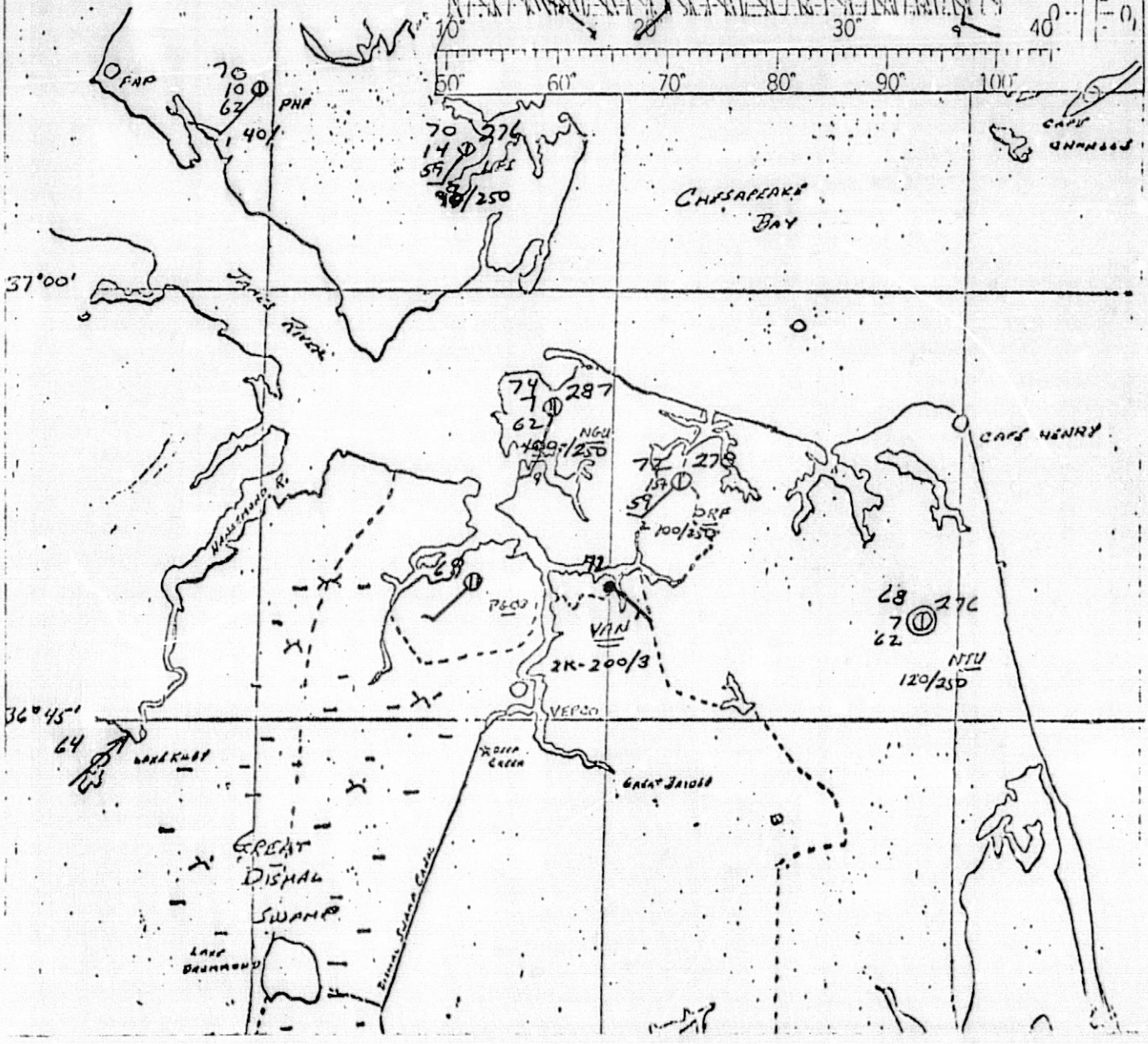

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 24 JUNE 75
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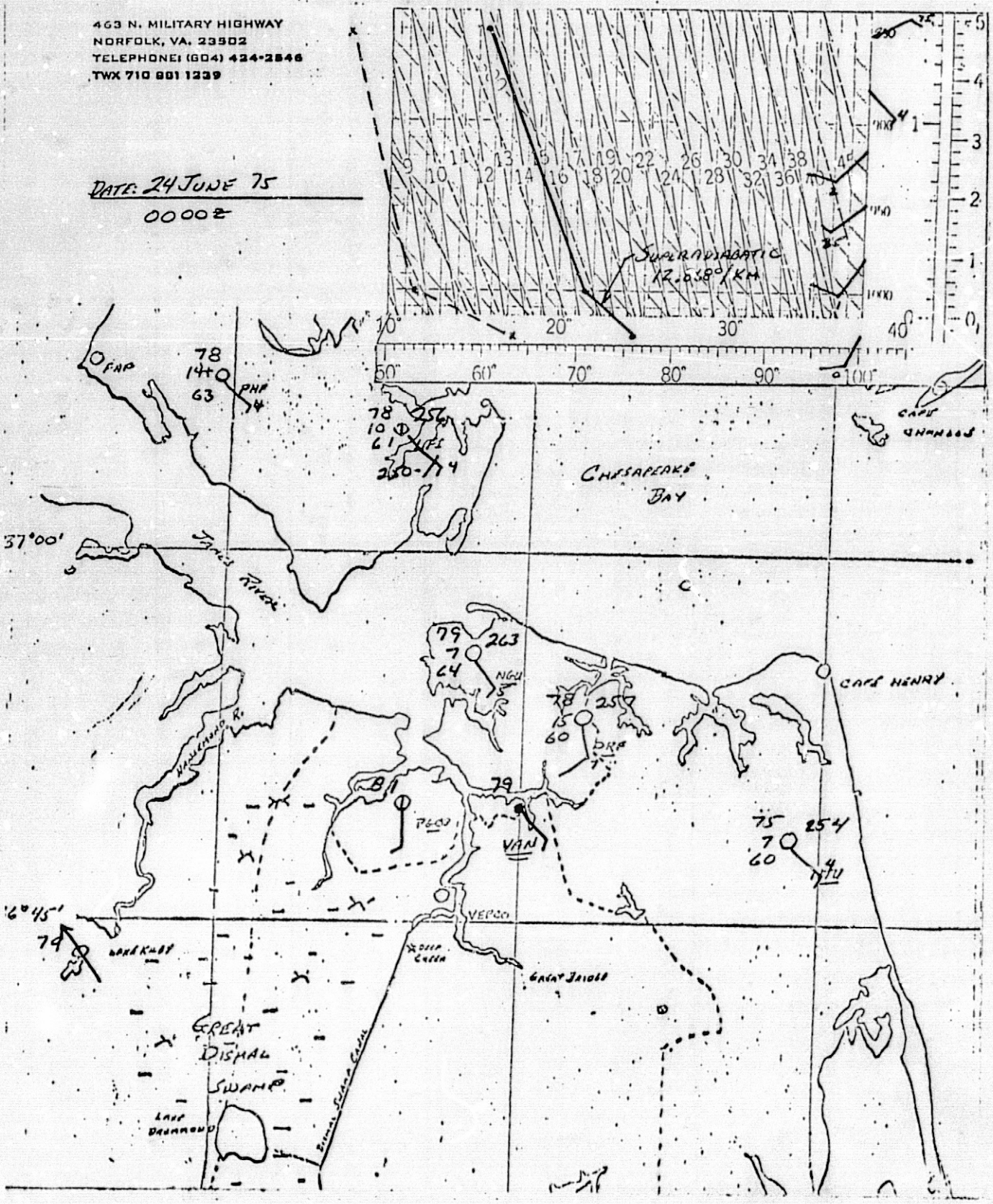

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463 N. MILITARY HIGHWAY
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TELEPHONE: (804) 424-2846
TWX 710 881 1225

DATE: 24 JUNE 75
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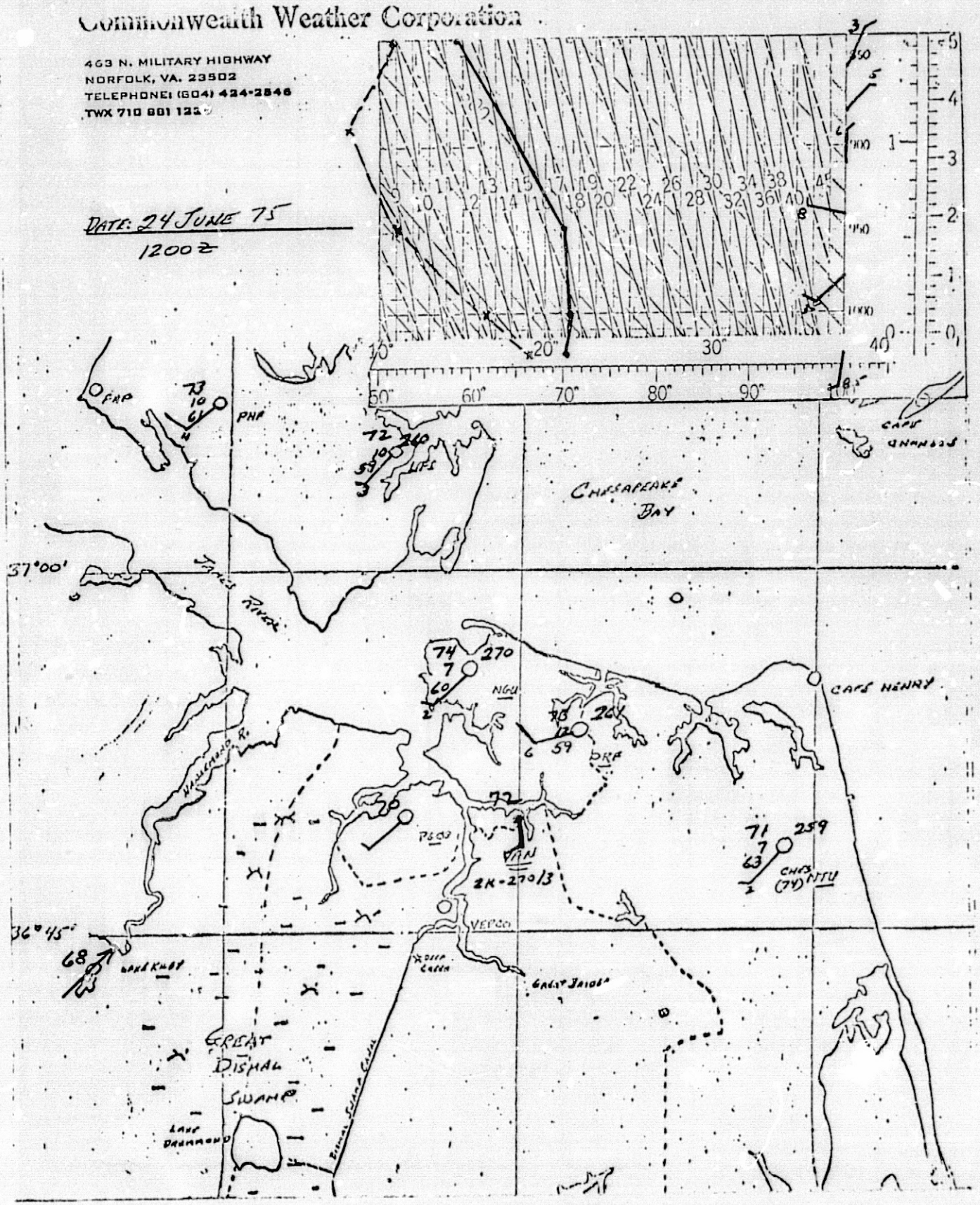

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 25 JUNE 75
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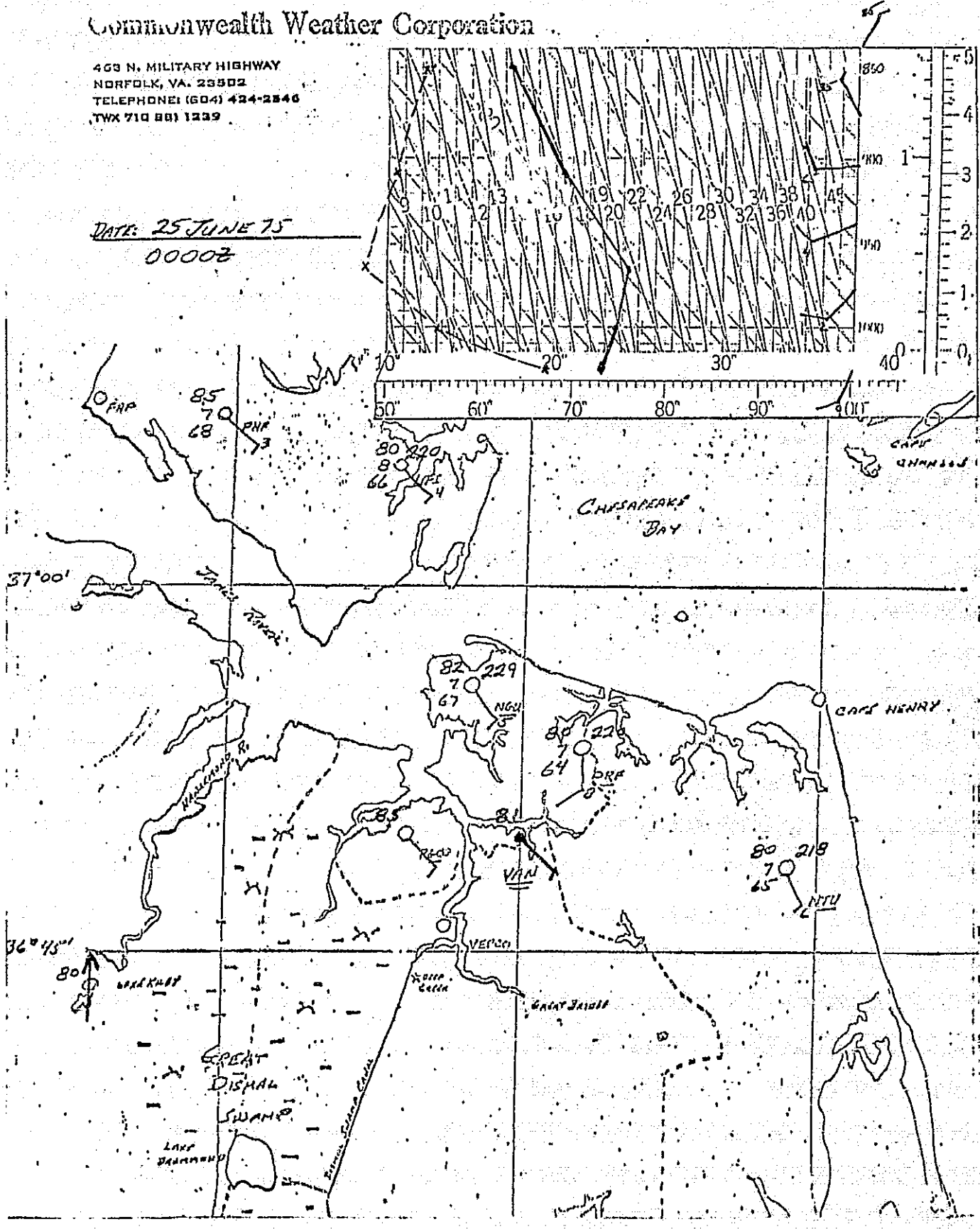

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2840
TWX 710 881 1539

DATE: 25 JUNE 75
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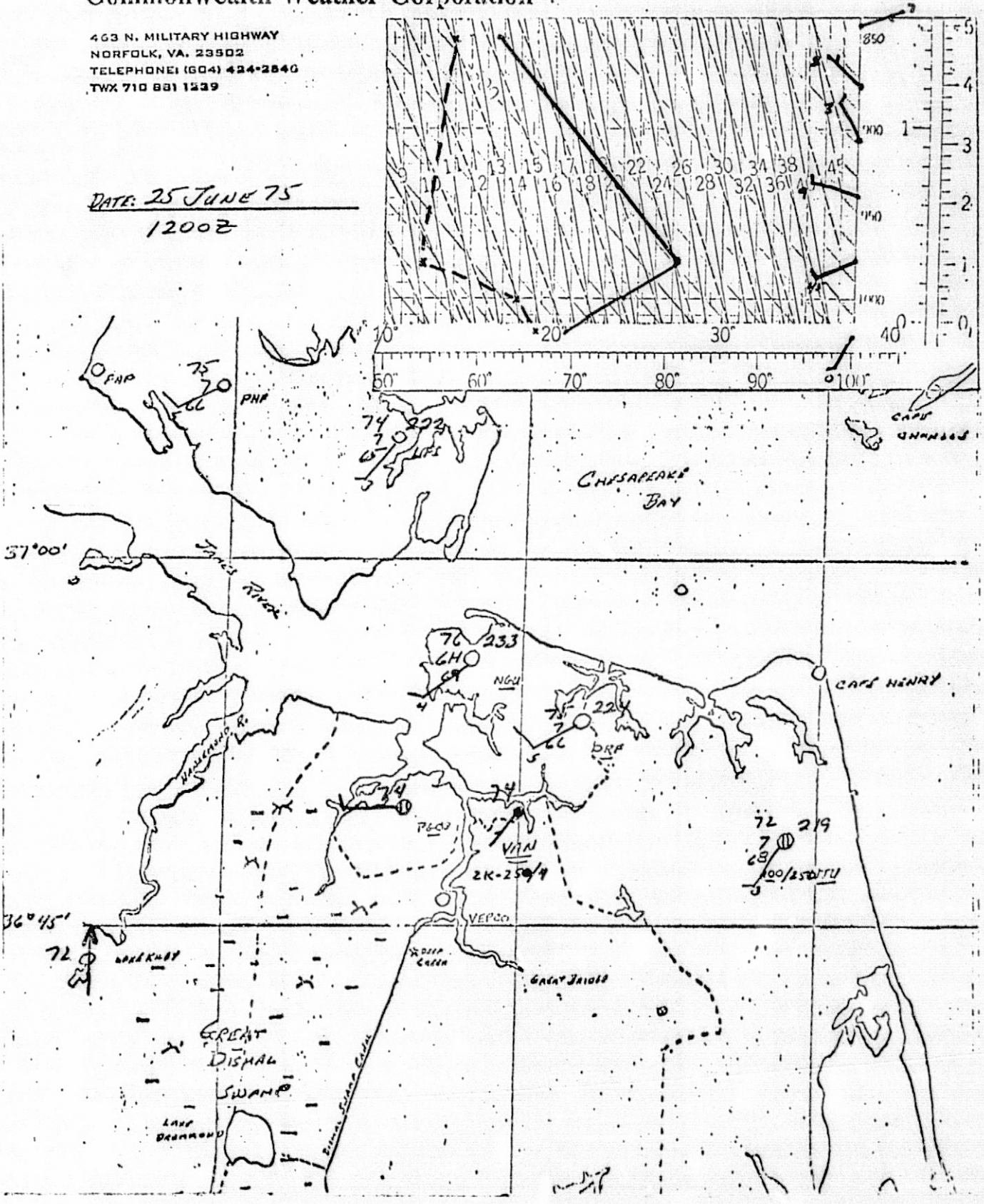

Commonwealth Weather Corporation

463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 26 JUNE 75
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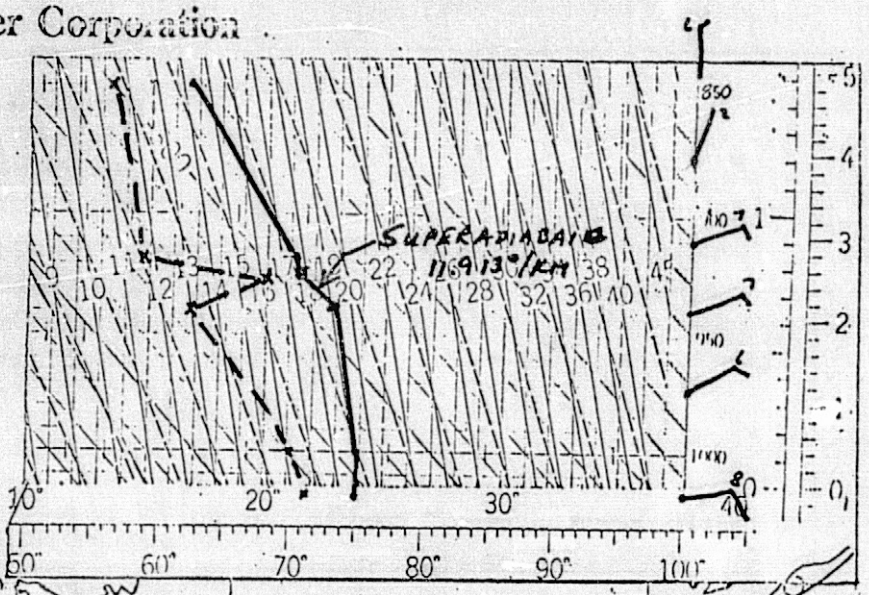

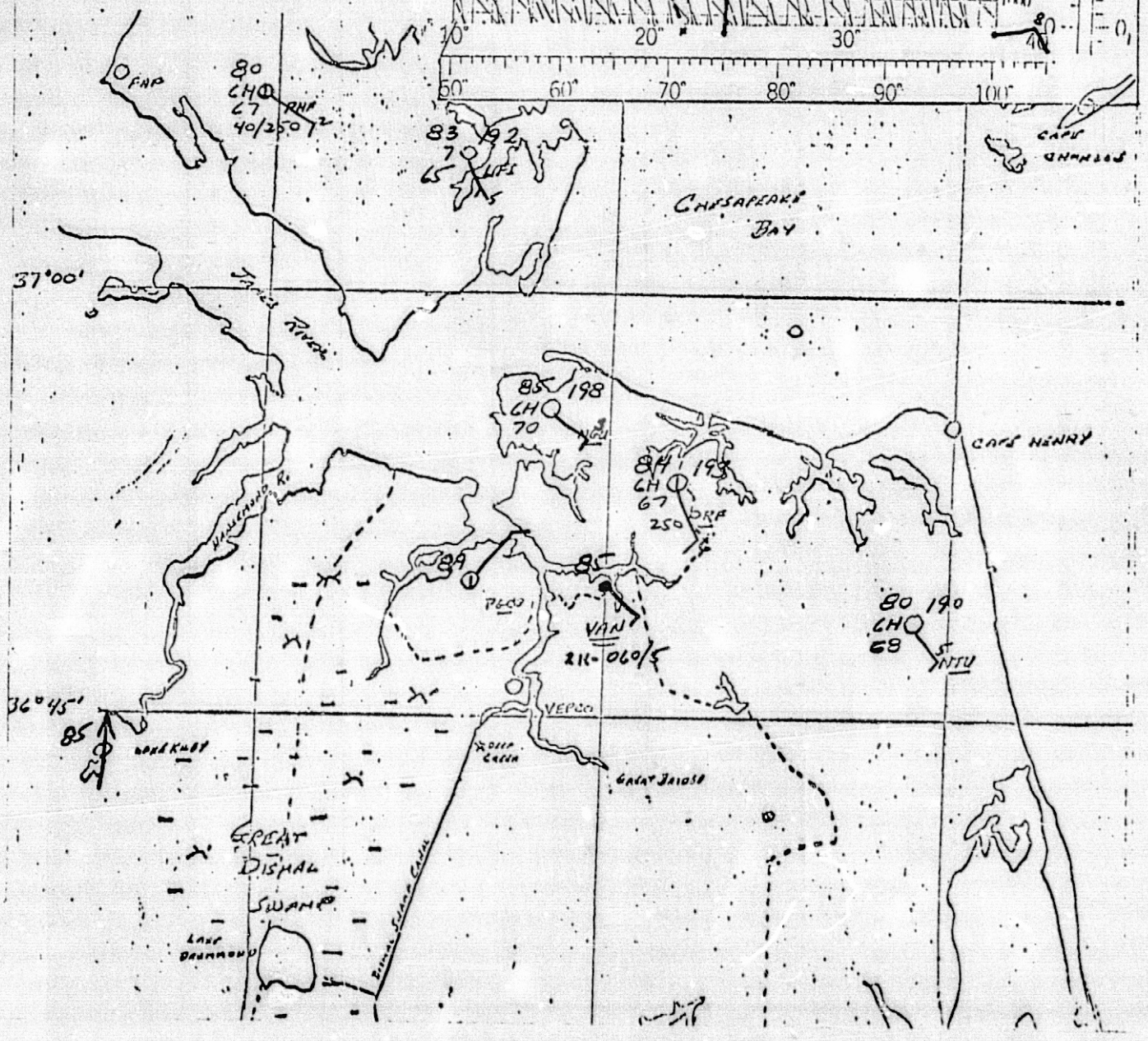

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 464-2548
TWX 710 881 1239

DATE: 26 JUNE 75

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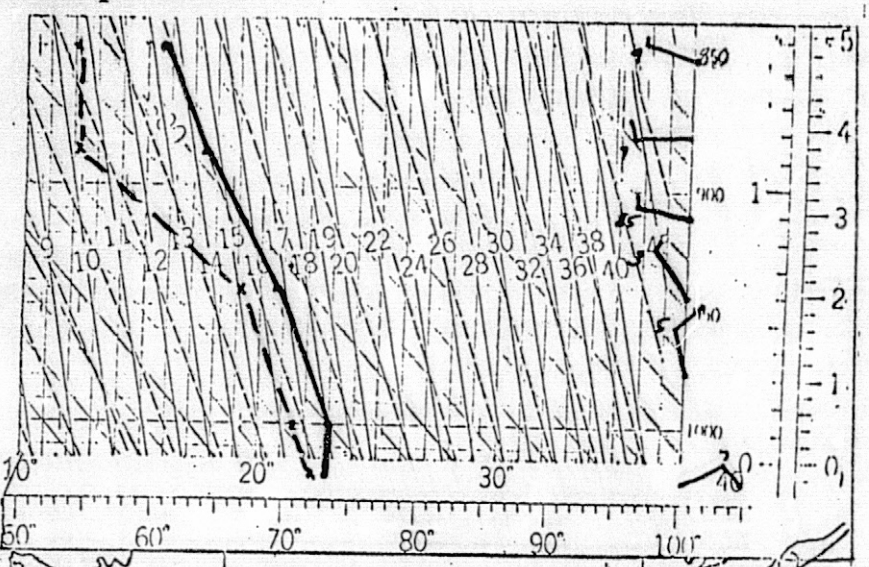

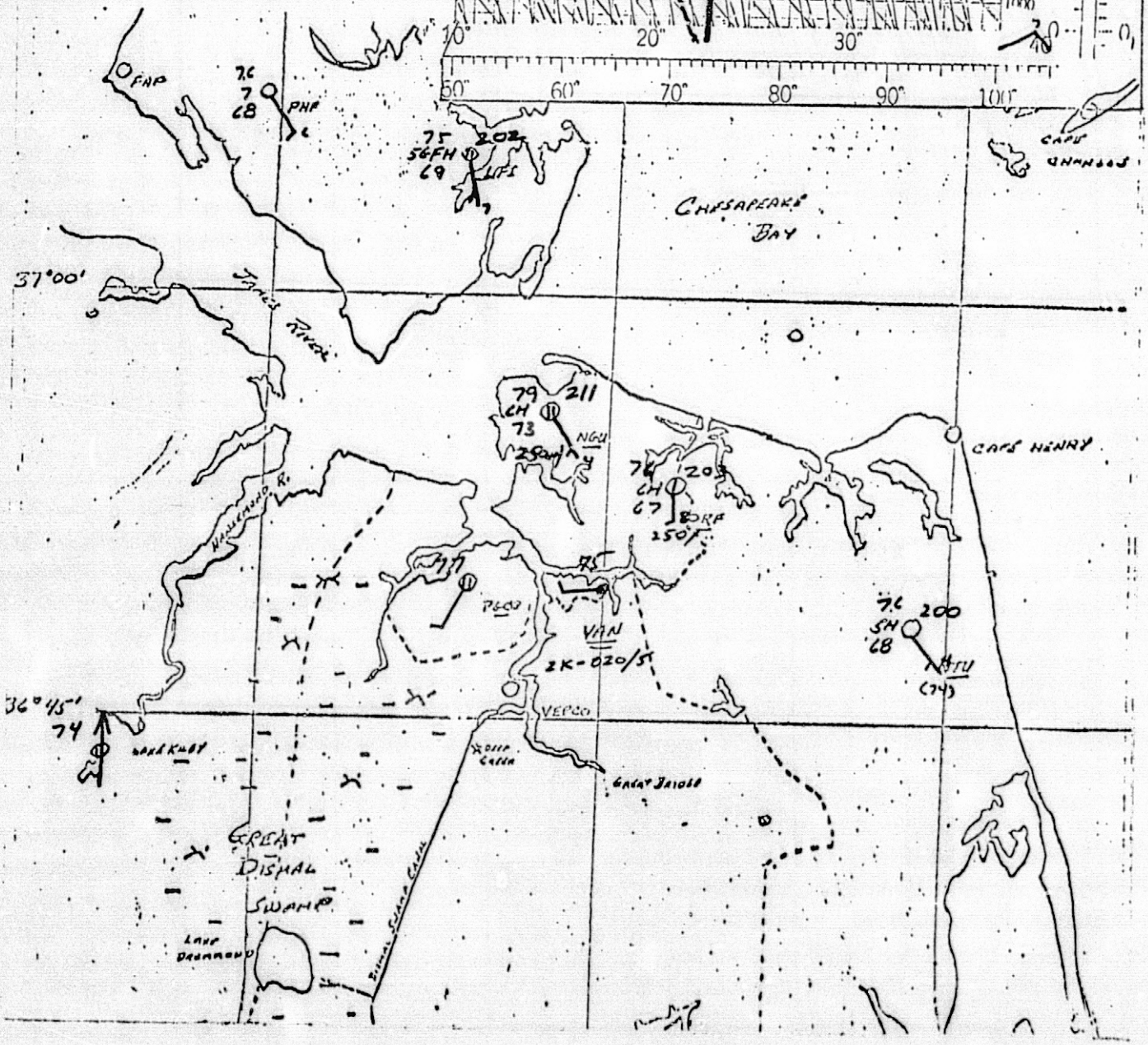

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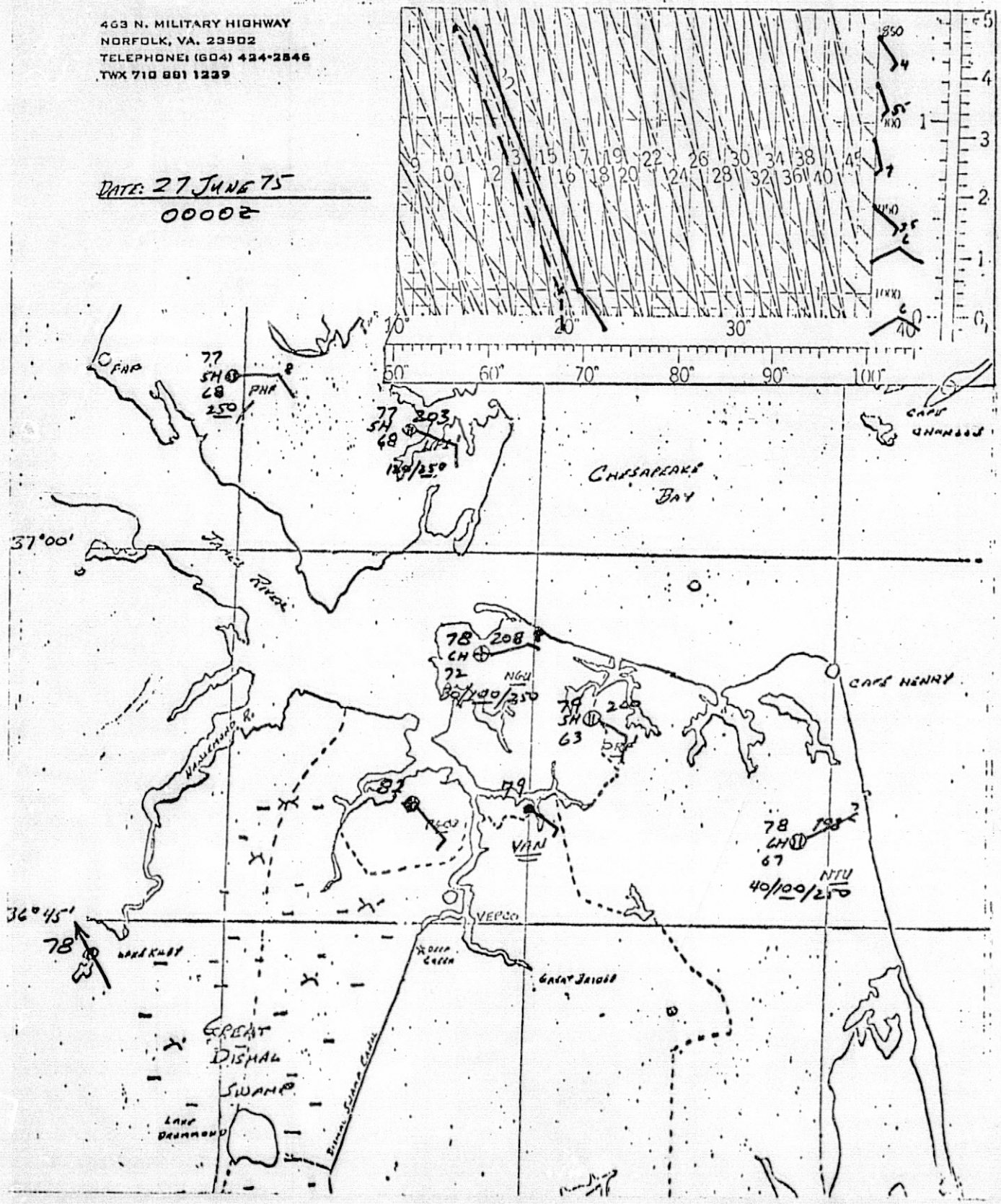
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 27 JUNE 75
00002



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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1229

DATE: 27 JUNE 75
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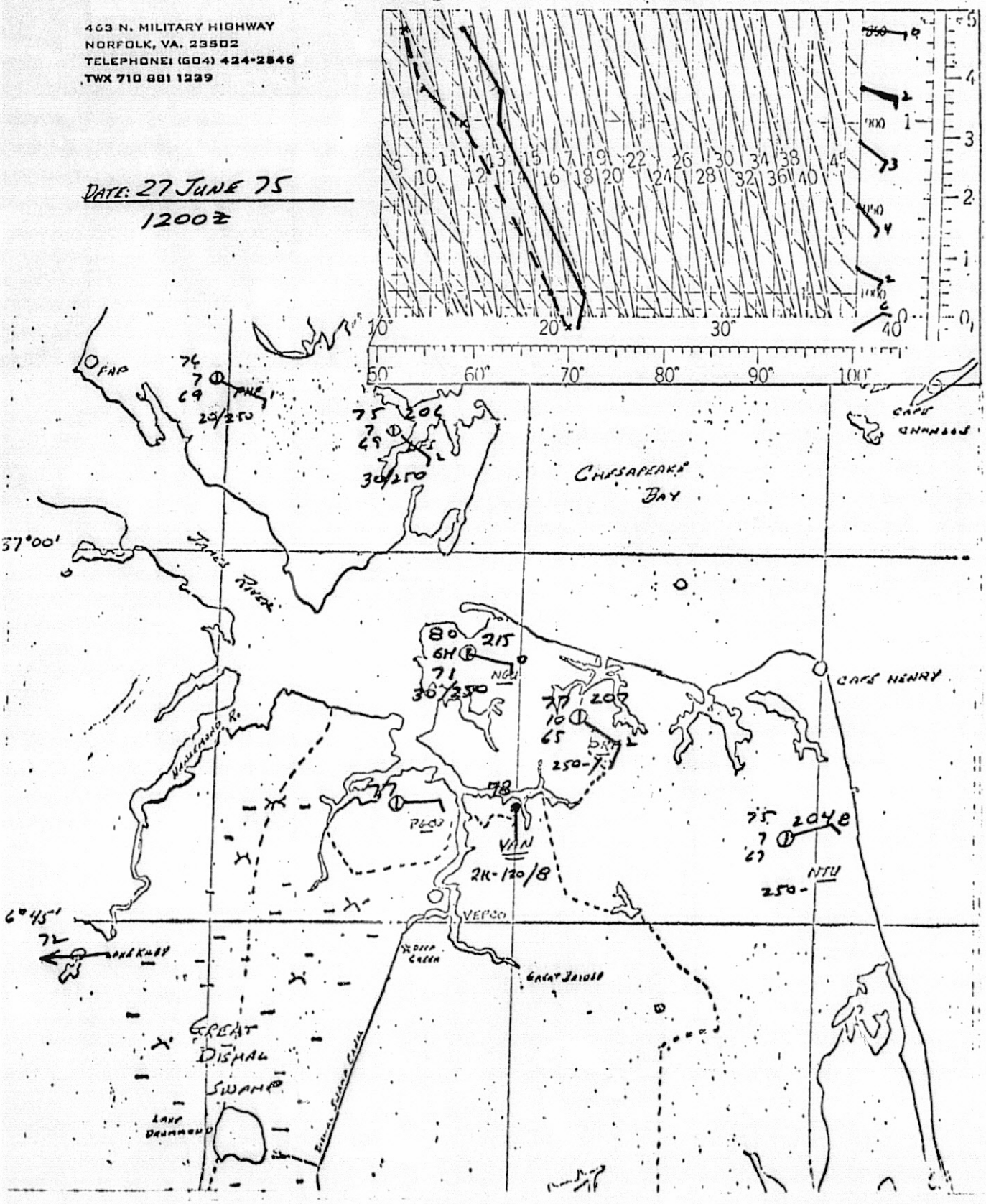

Commonwealth Weather Corporation

463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 28 JUNE 75
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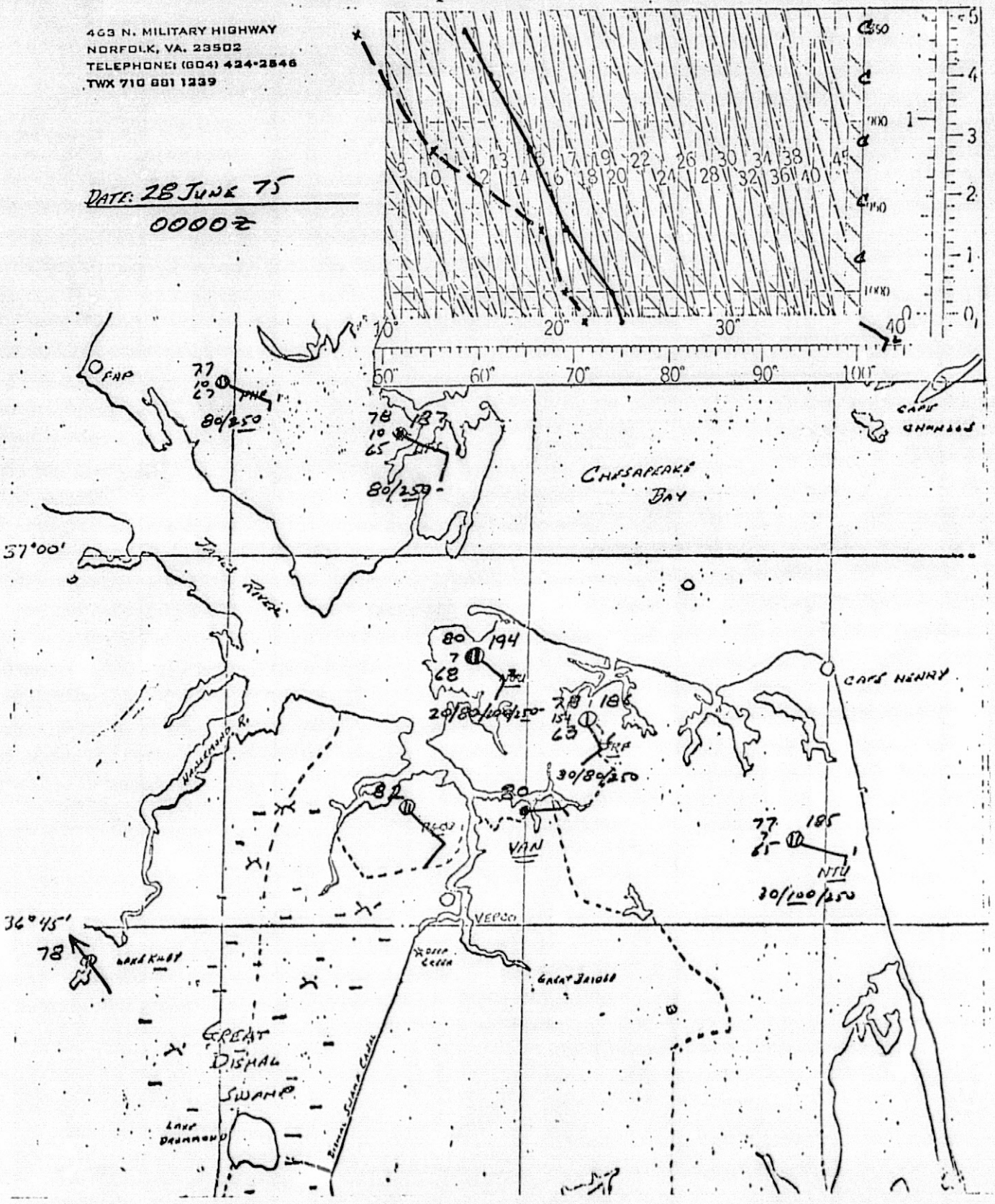

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 28 JUNE 75
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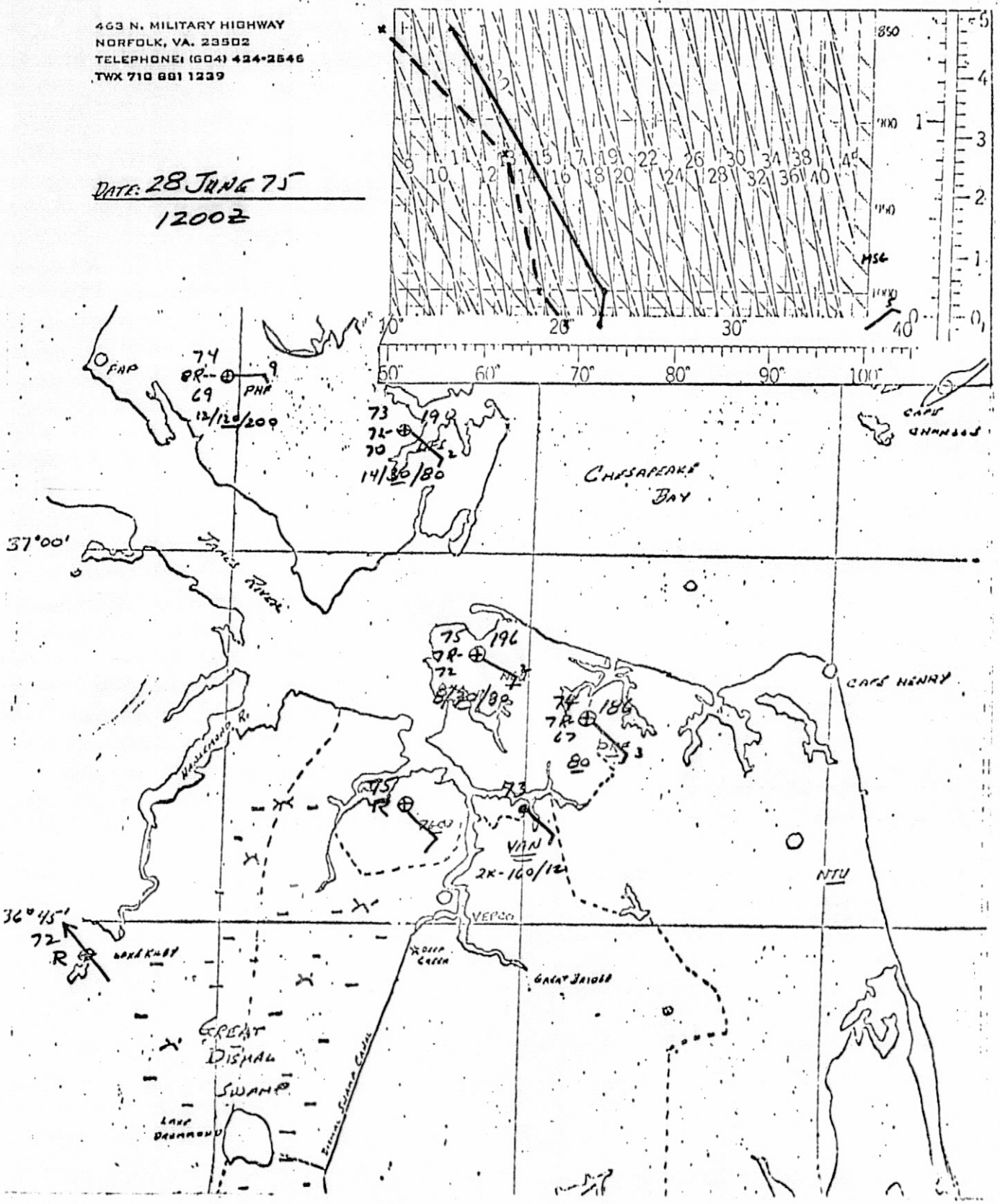

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE (804) 424-2846
TWX 710 881 1239

DATE: 29 JUNE 75
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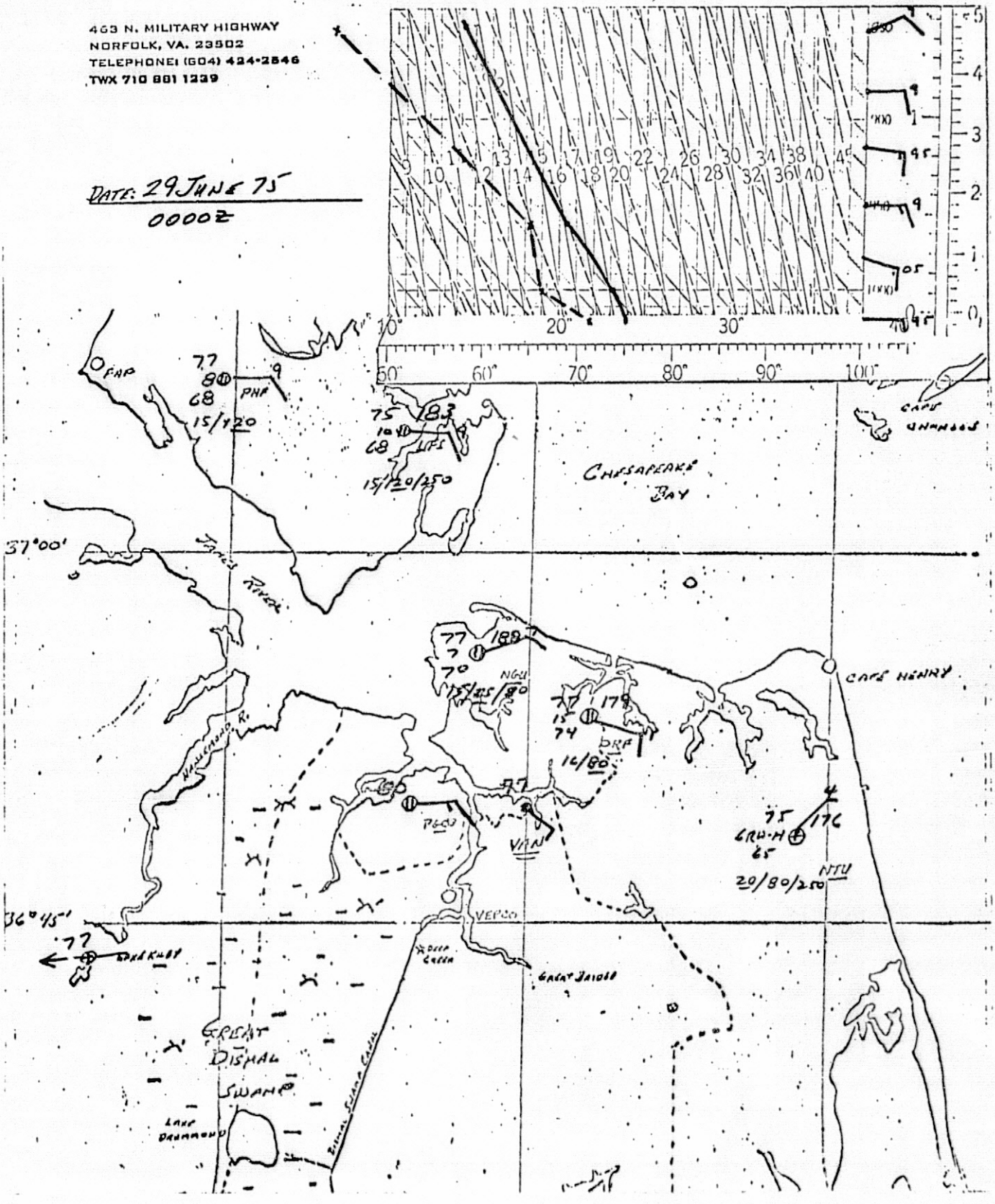

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 29 JUNE 75
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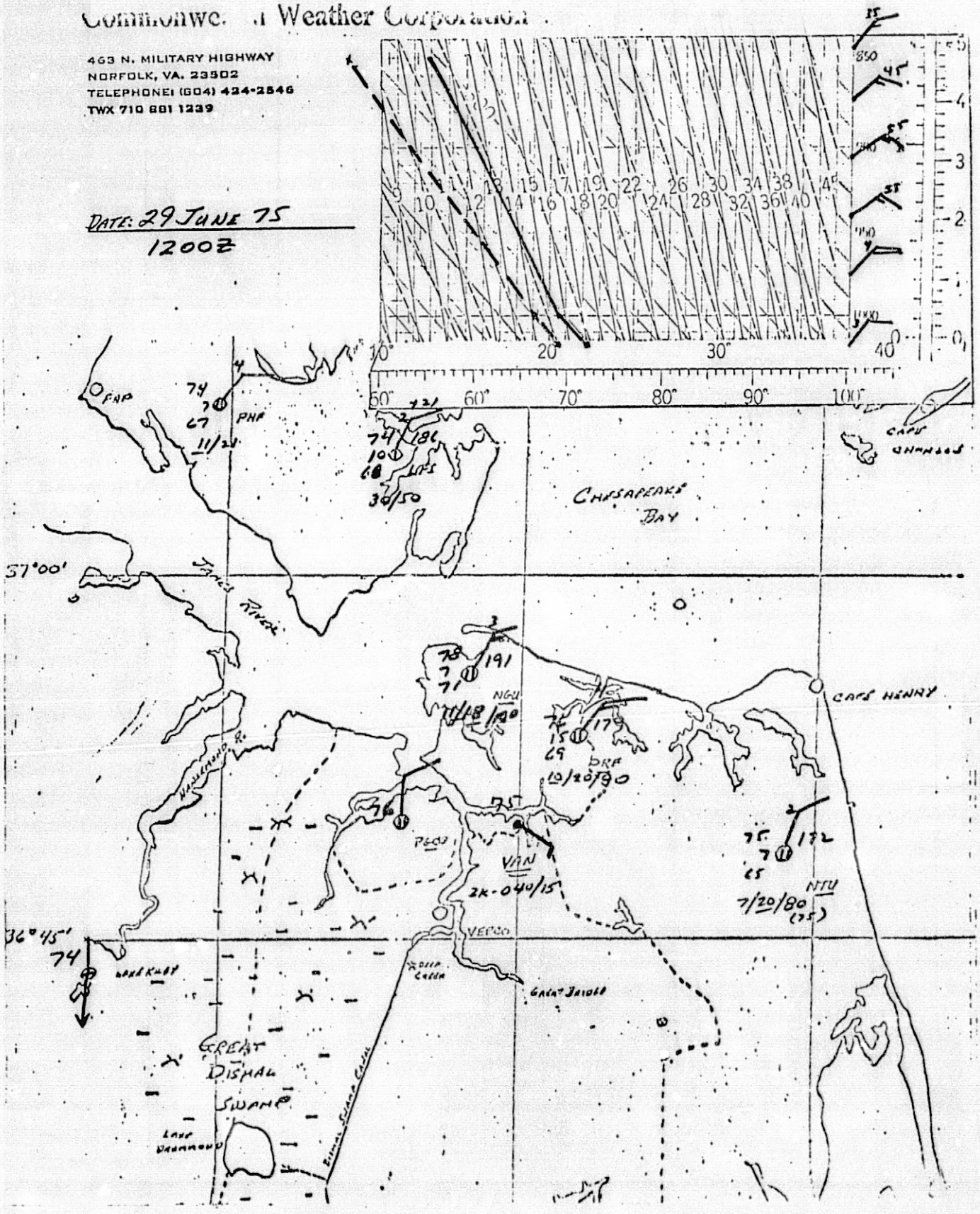

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 30 JUNE 75
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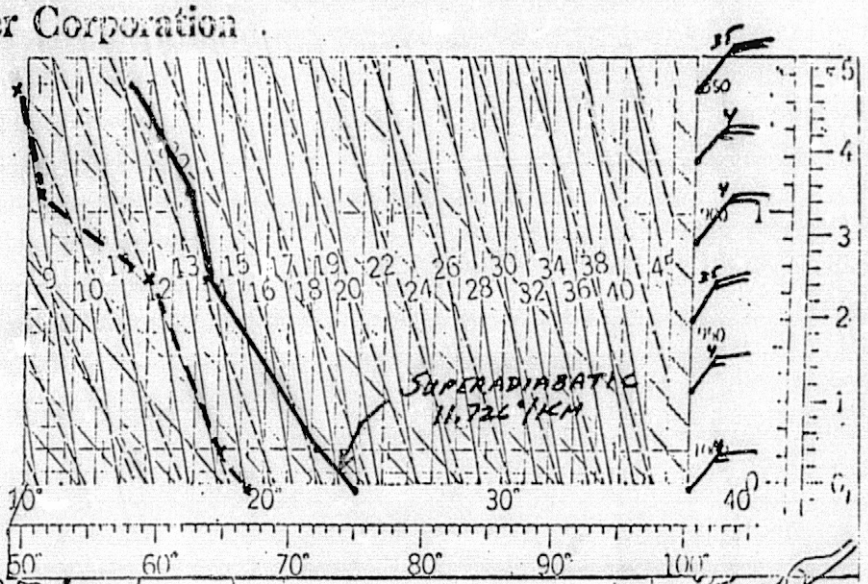

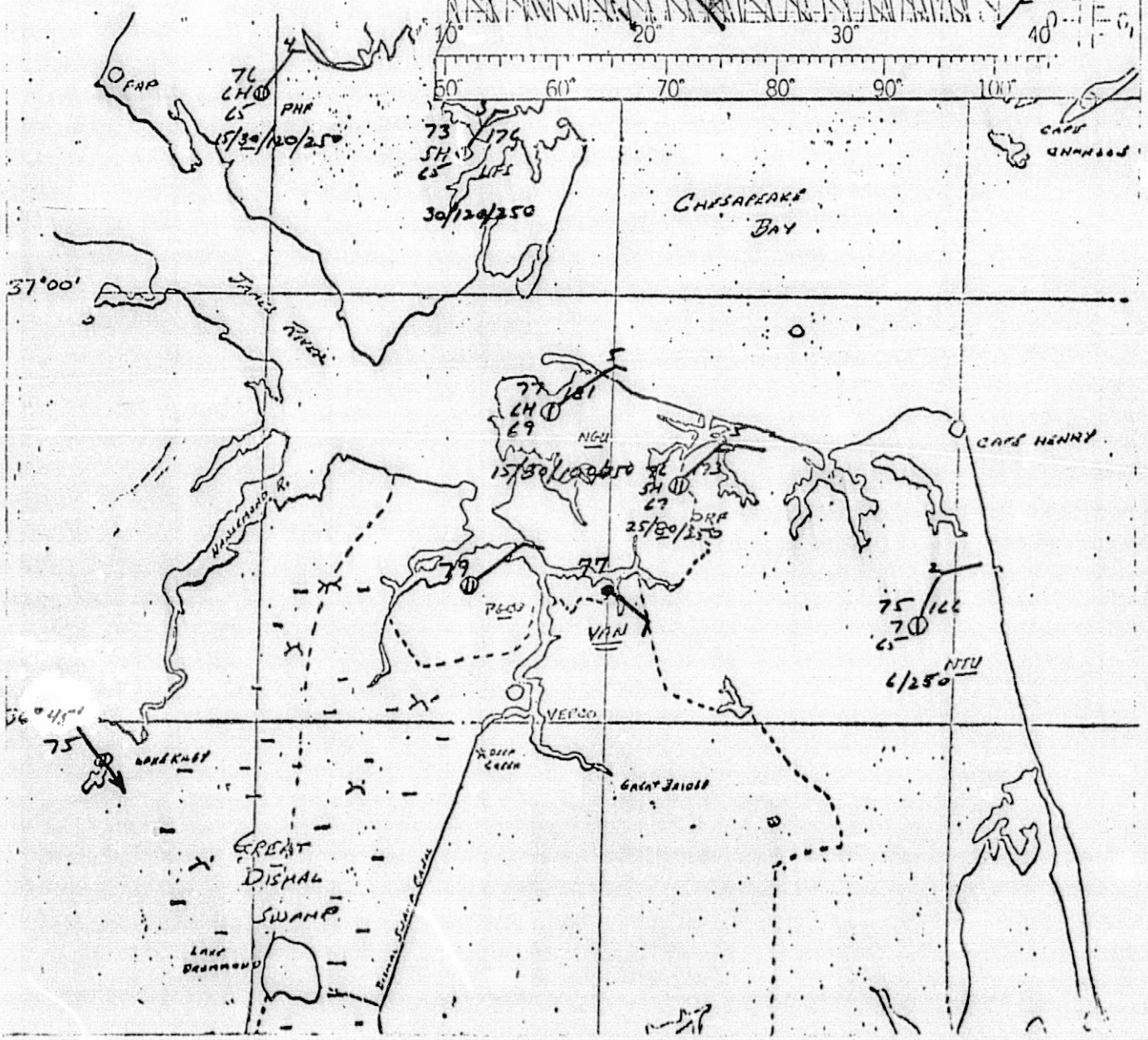

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463 N. MILITARY HIGHWAY
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TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 30 JUNE 75
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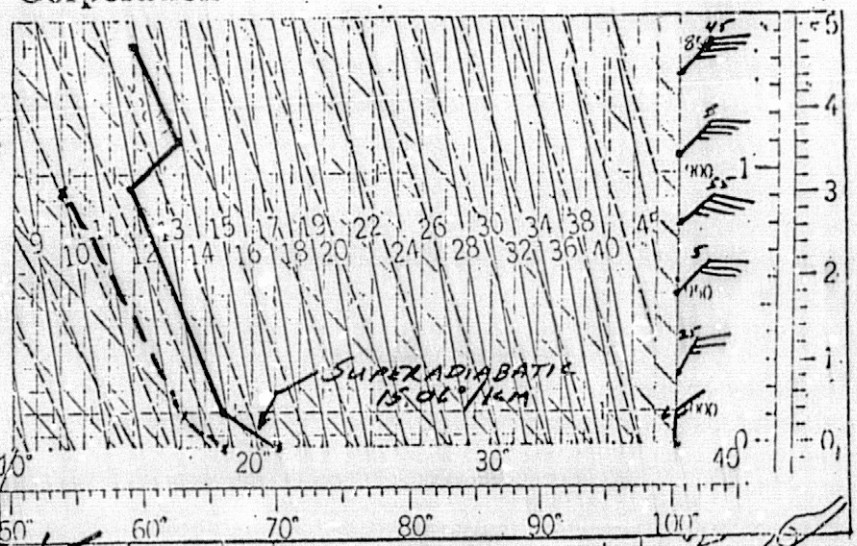

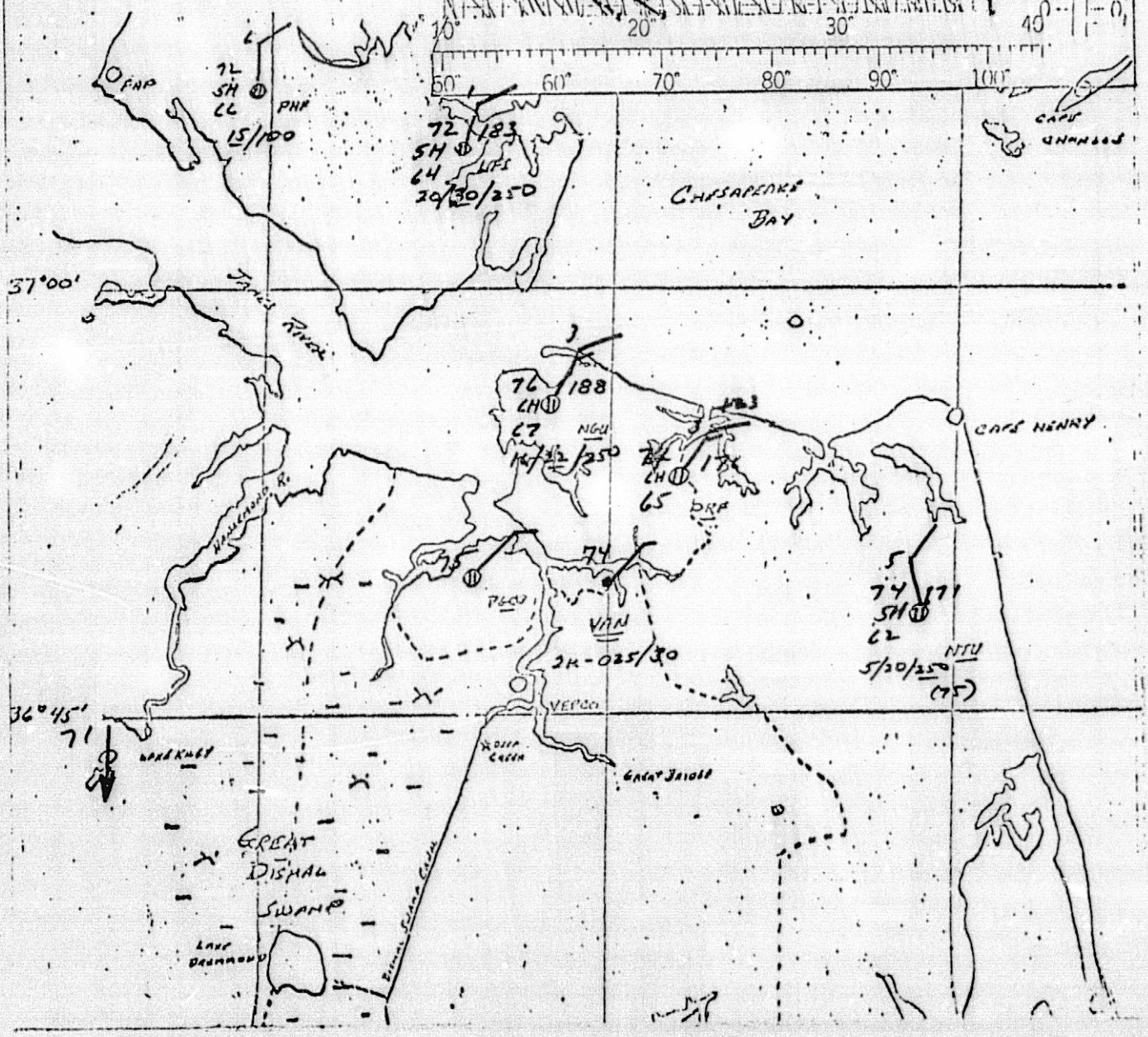

Commonwealth Weather Corporation
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE (804) 424-2546
TWX 710 881 1239

DATE: 1 JULY 75
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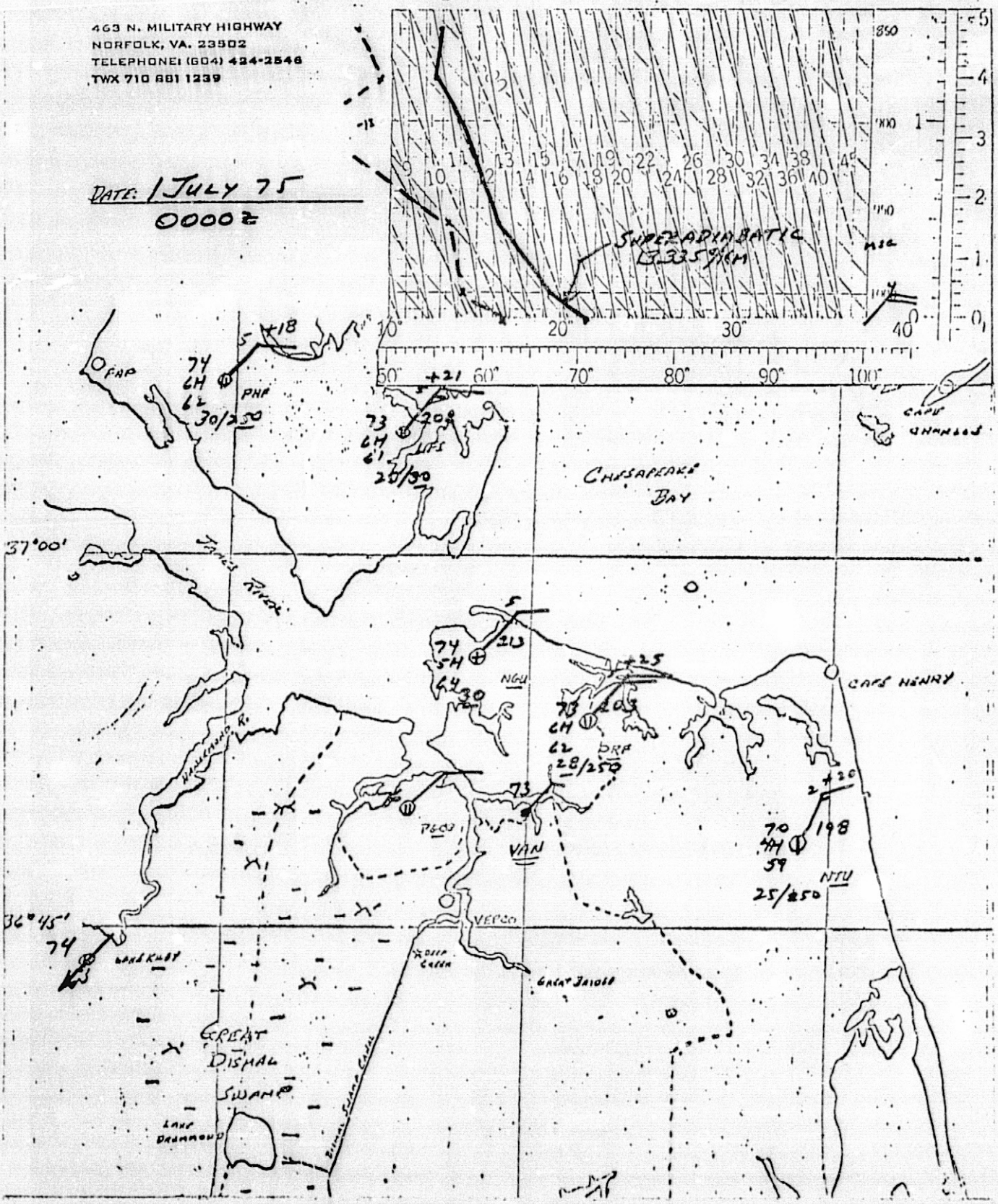

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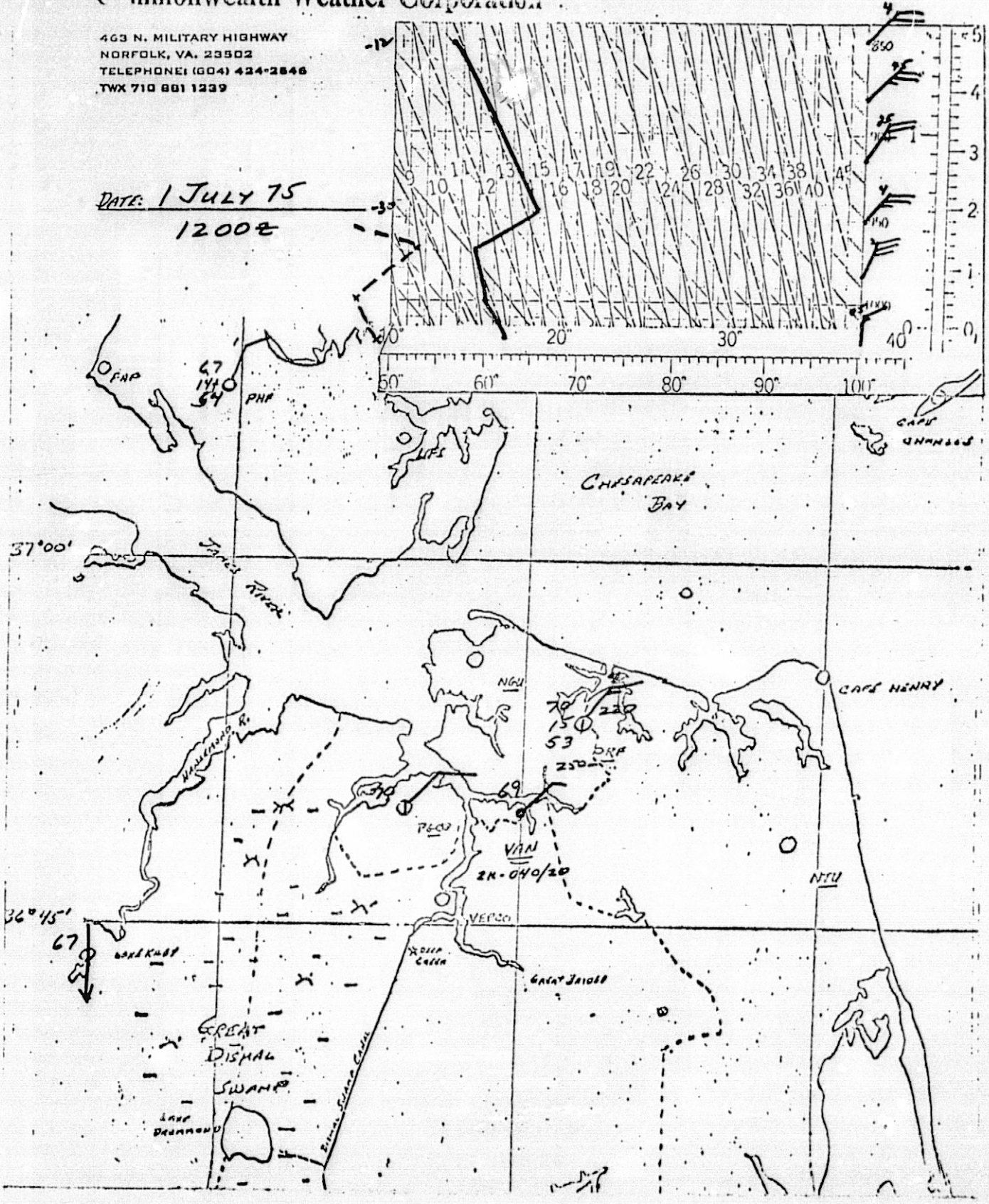
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2646
TWX 710 881 1239

DATE: 1 JULY 75
1200Z



Commonwealth Weather Corporation
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 2 JULY 75
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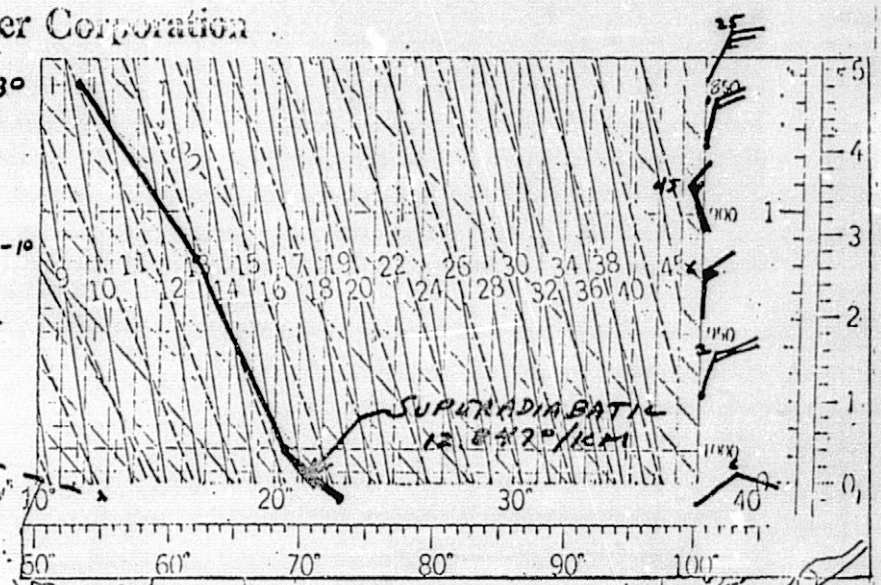

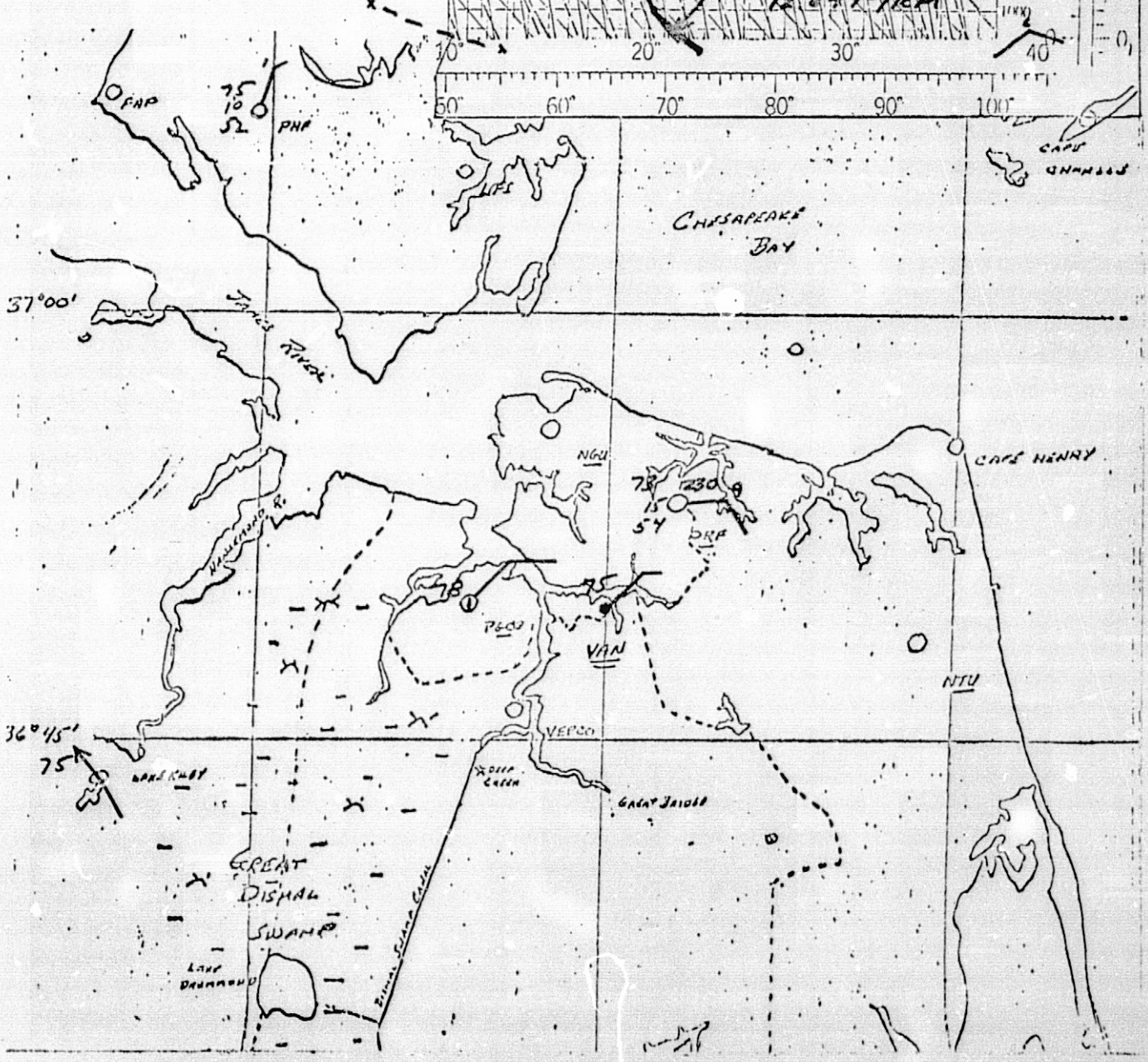

Commonwealth Weather Corporation
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 2 JULY 75
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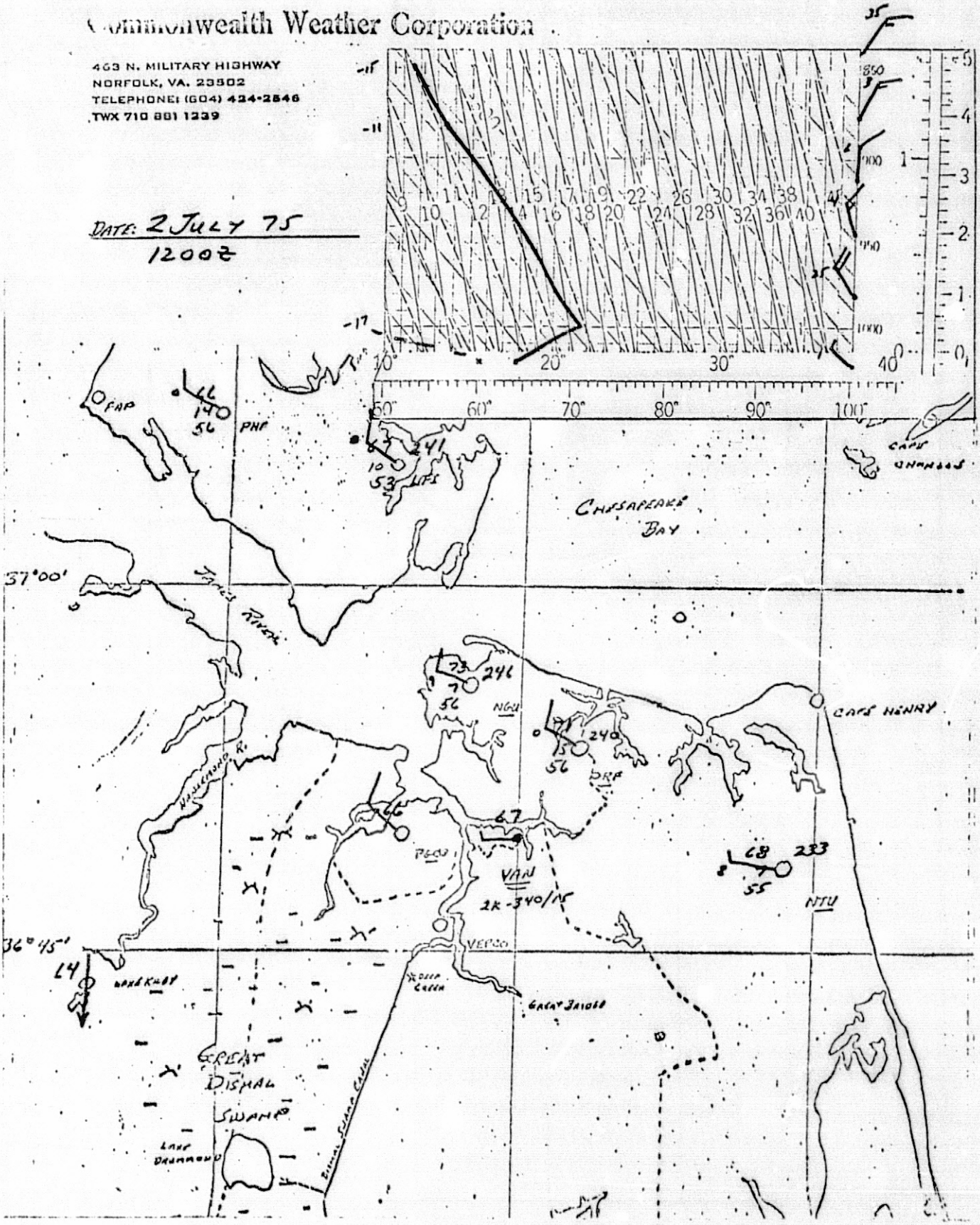

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 3 JULY 75
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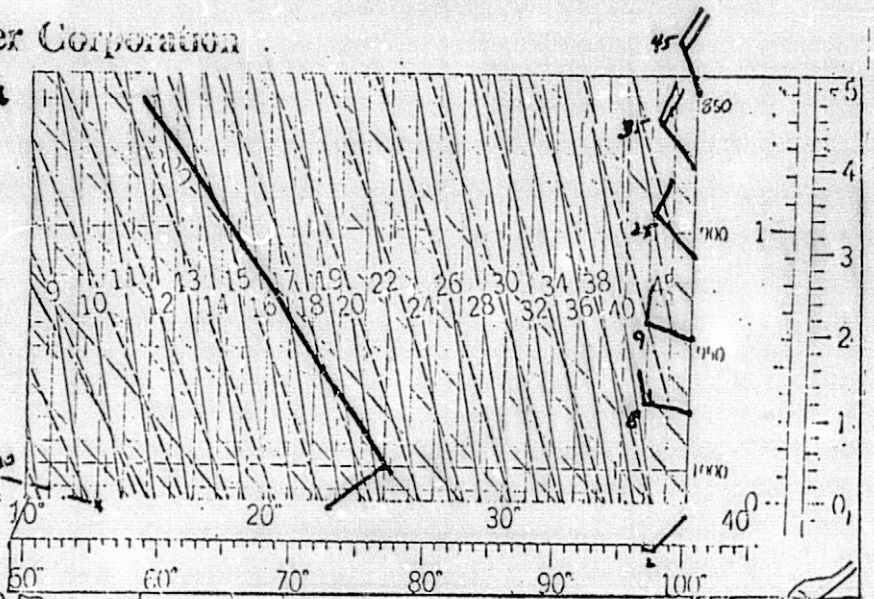

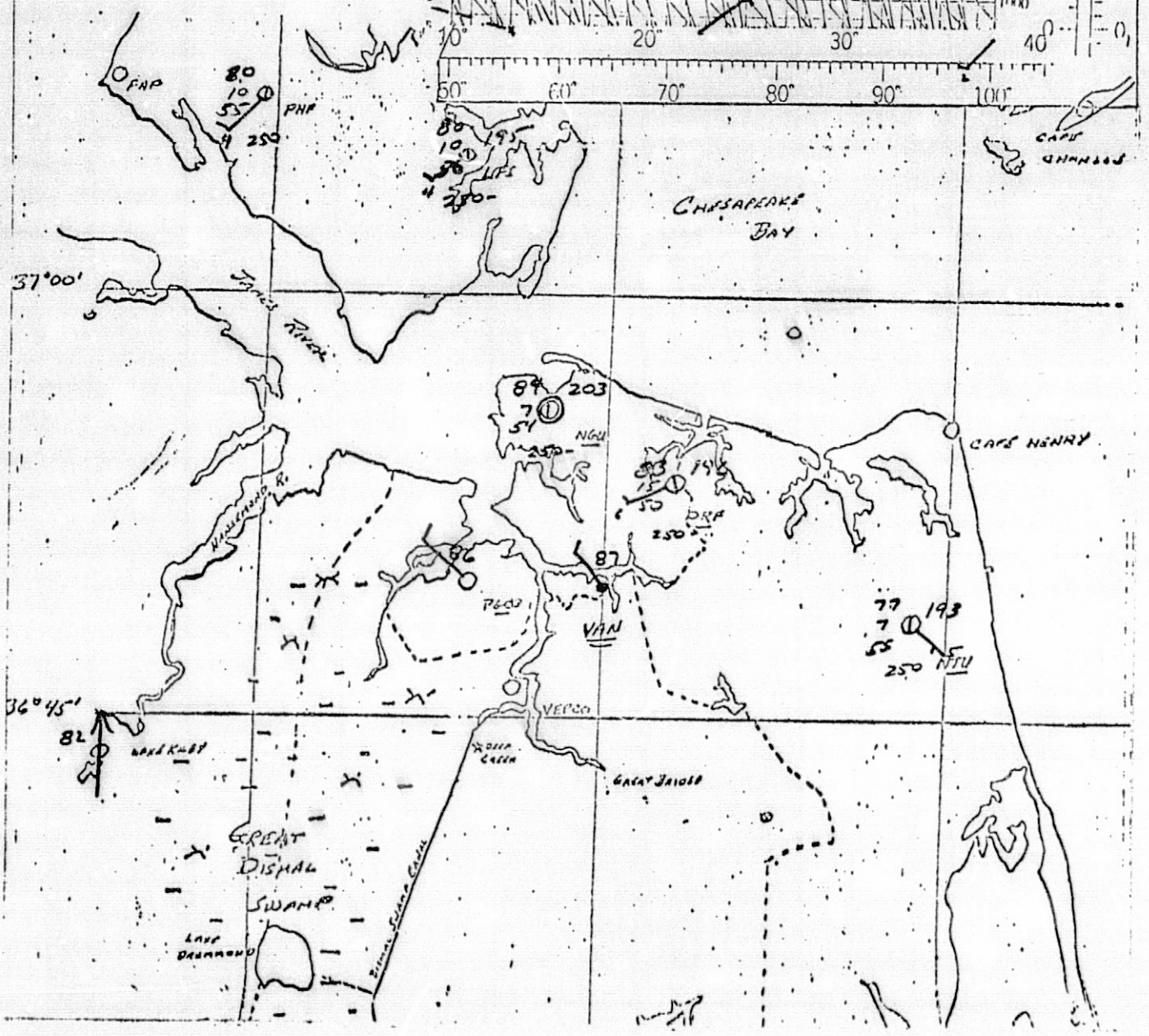

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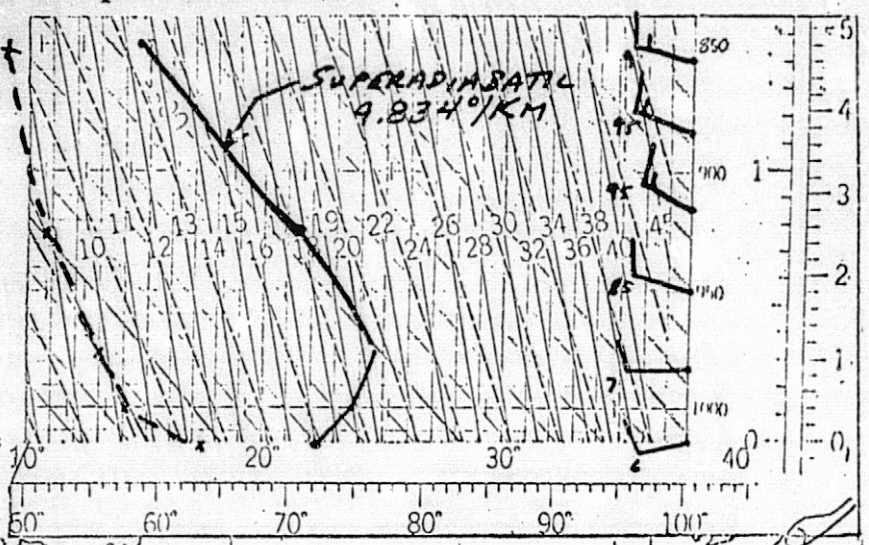
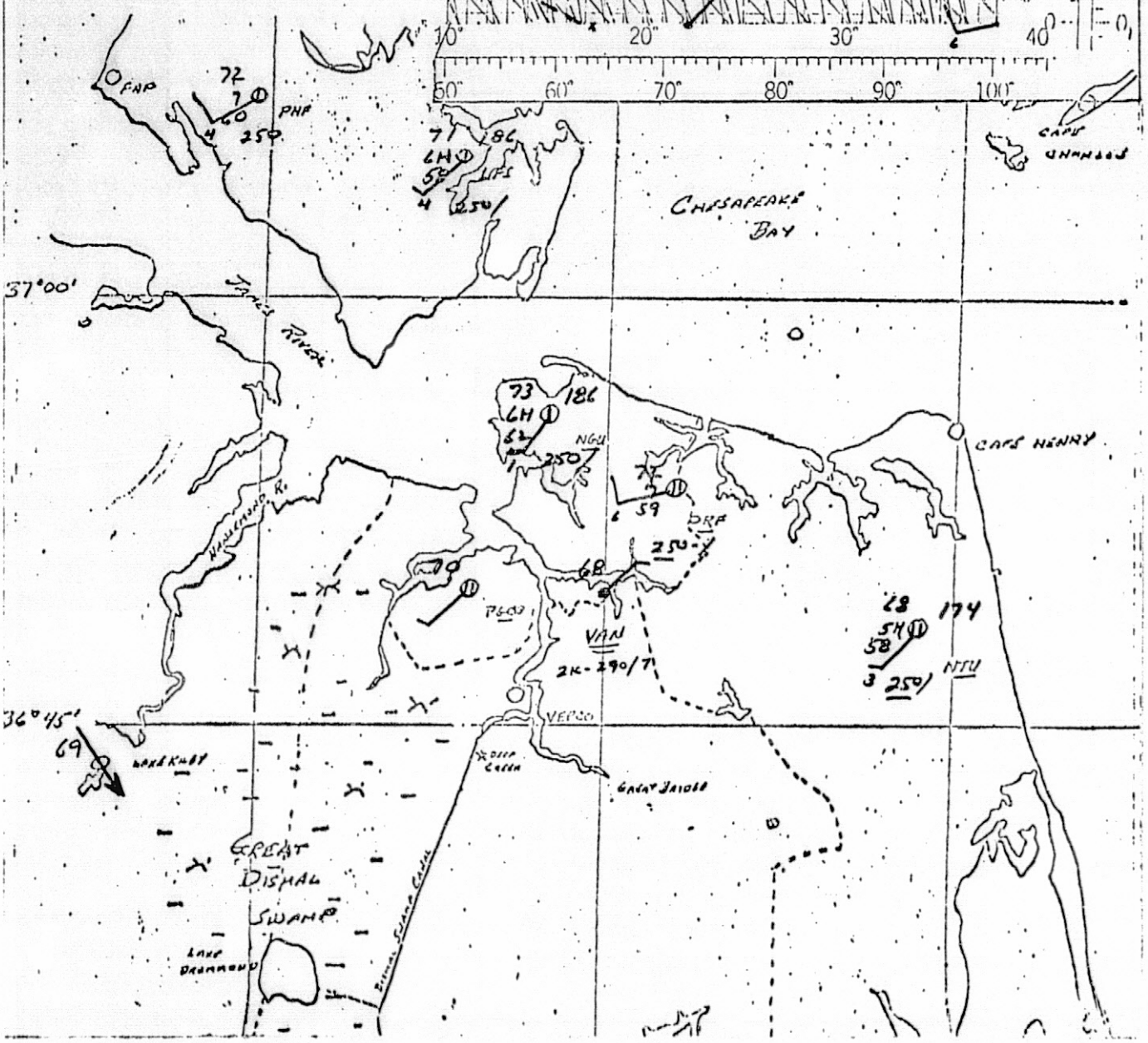
463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 3 JULY 75
1200Z





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463 N. MILITARY HIGHWAY
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TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 4 JULY 75
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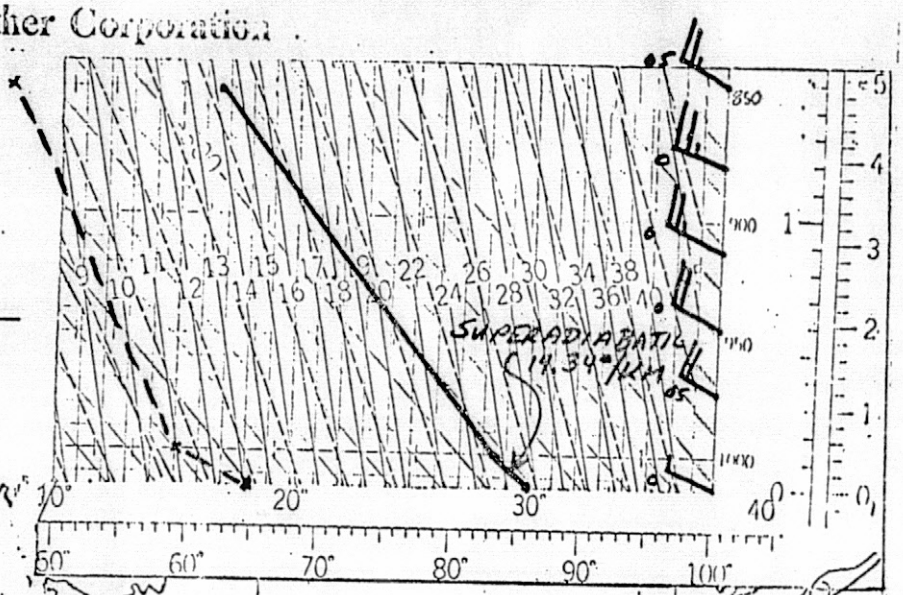

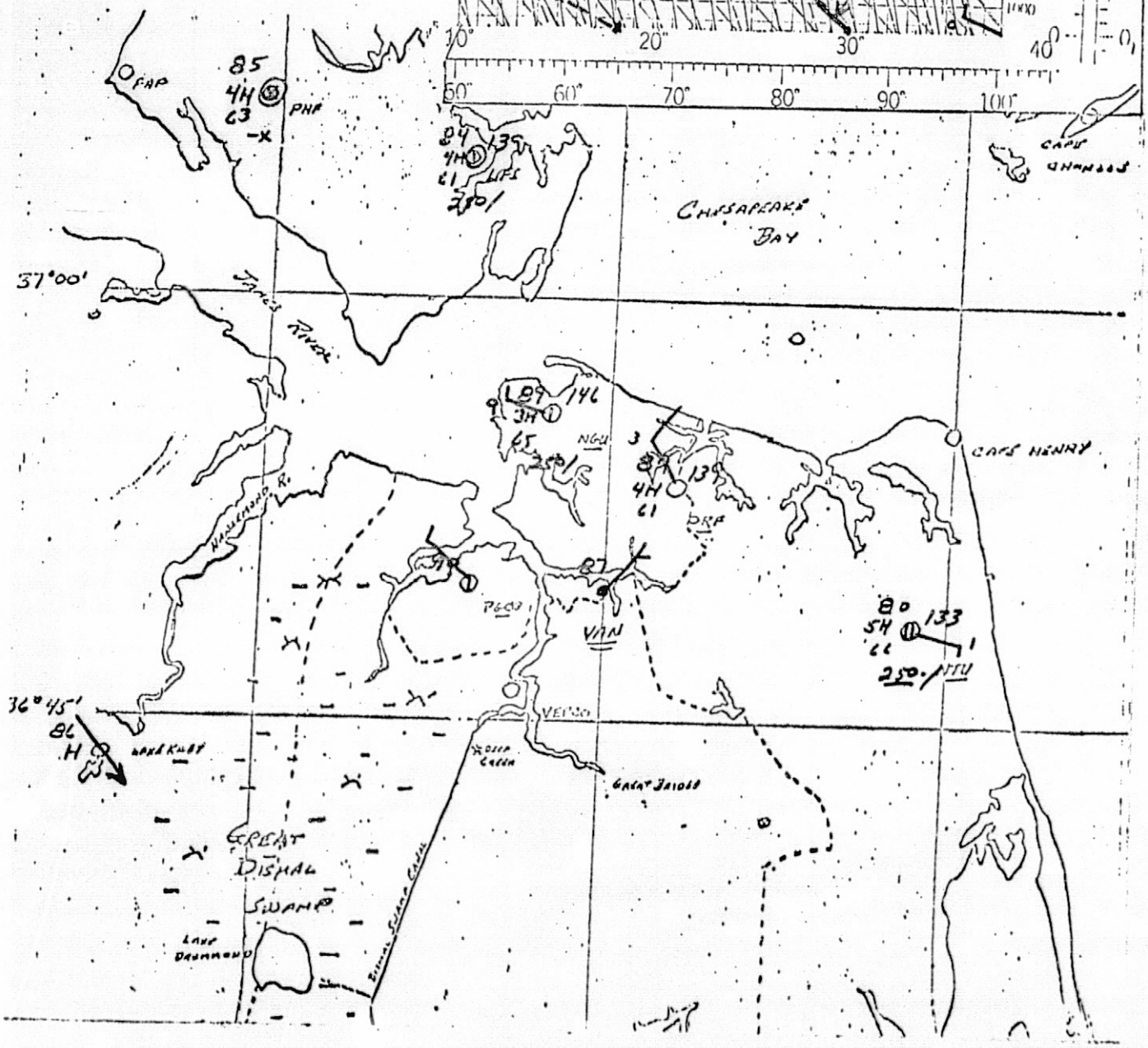

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 4 JULY 75
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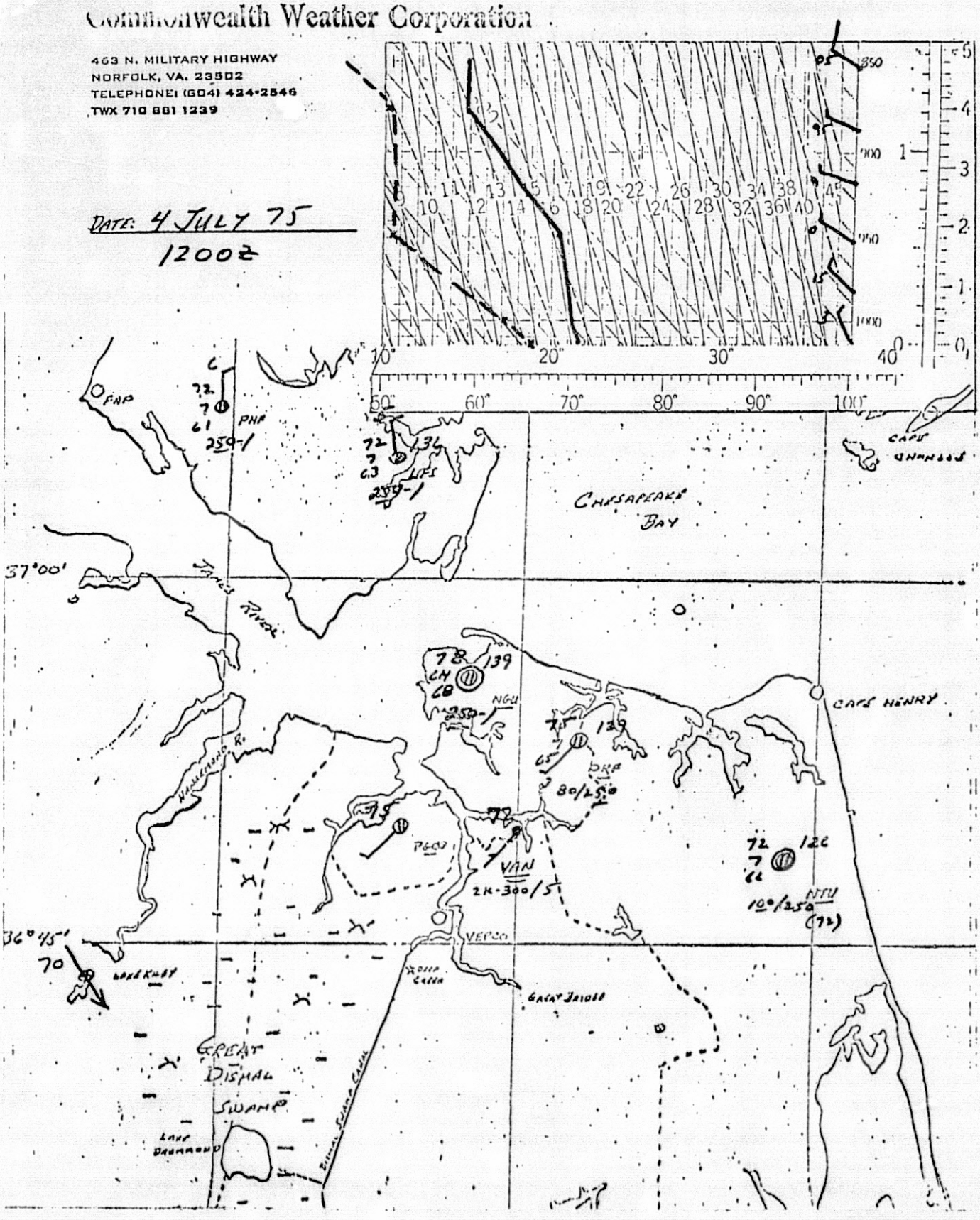

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463 N. MILITARY HIGHWAY
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TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 5 JULY 75

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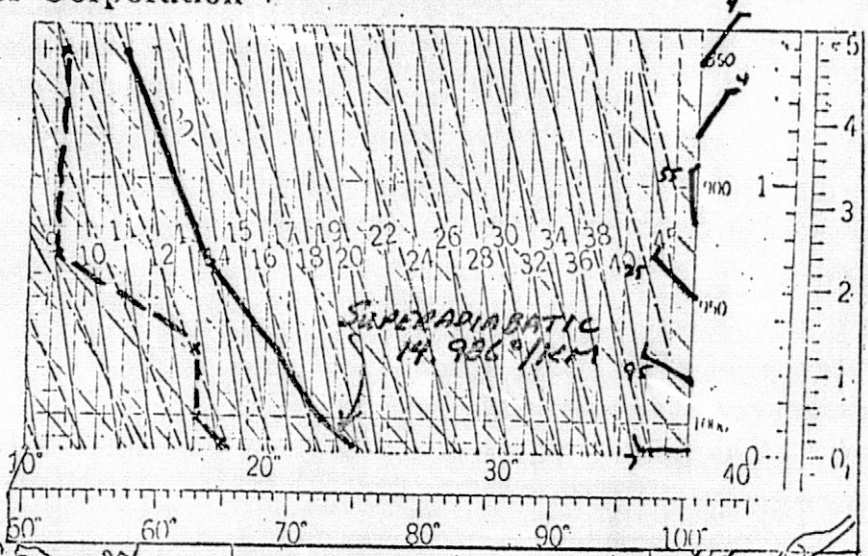

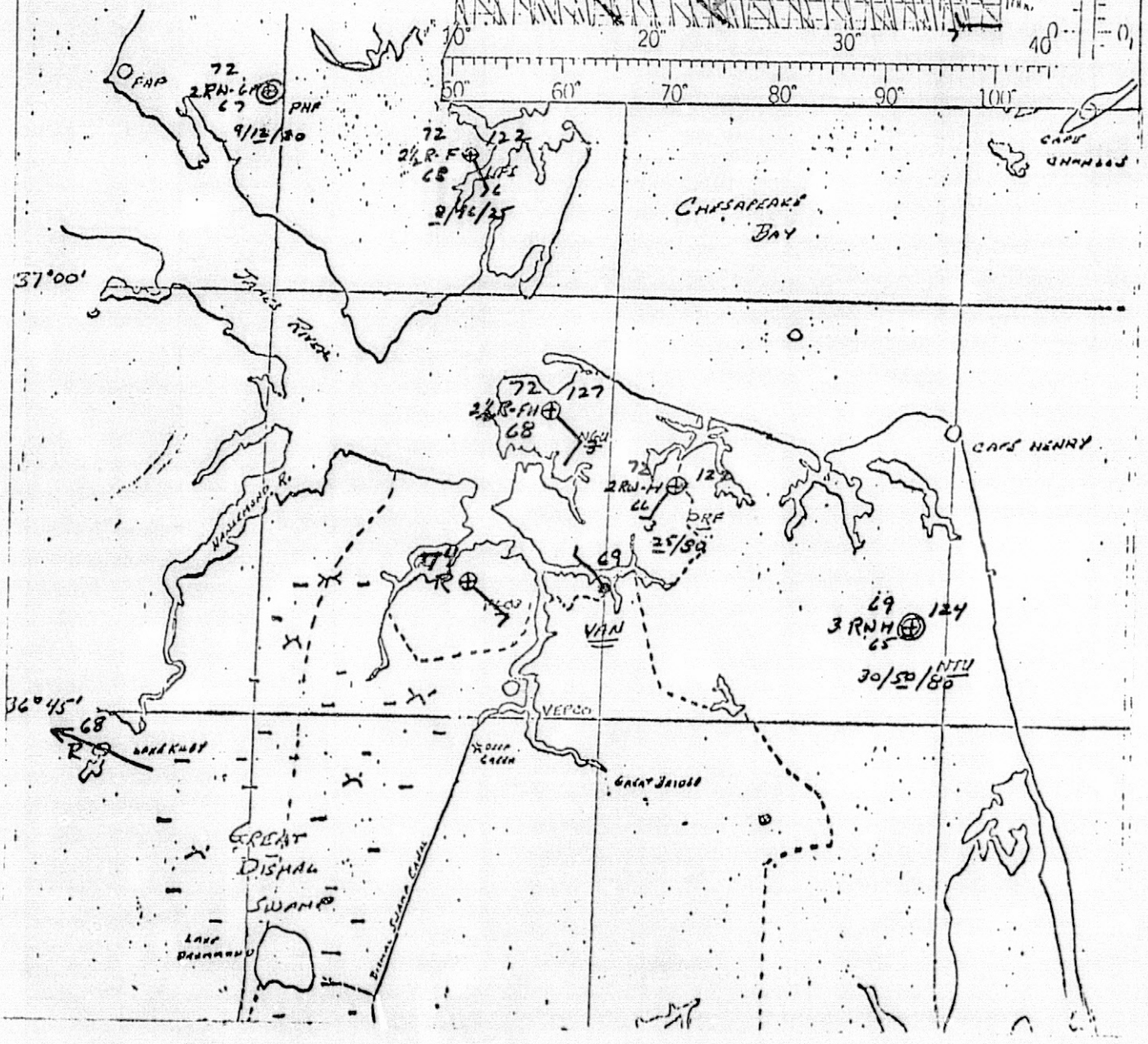

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2546
TWX 710 881 1239

DATE: 5 JULY 75
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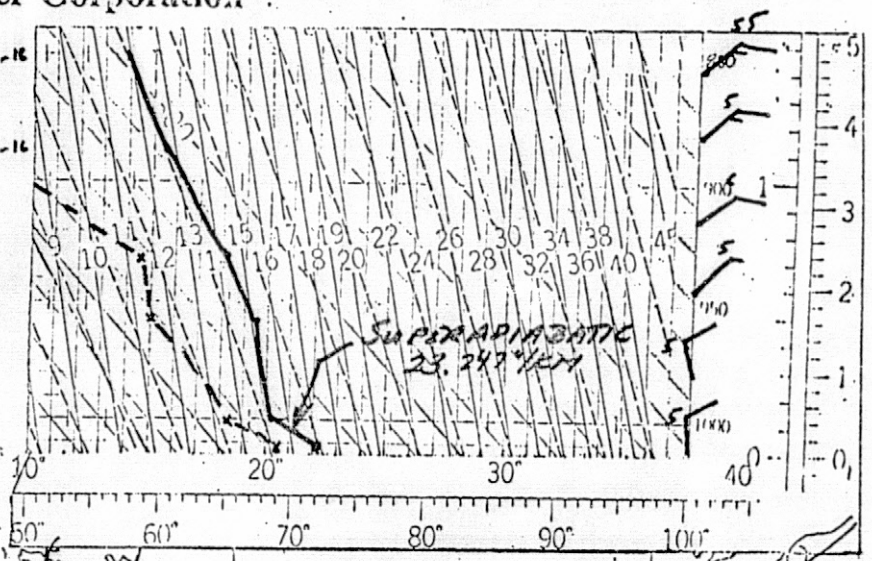

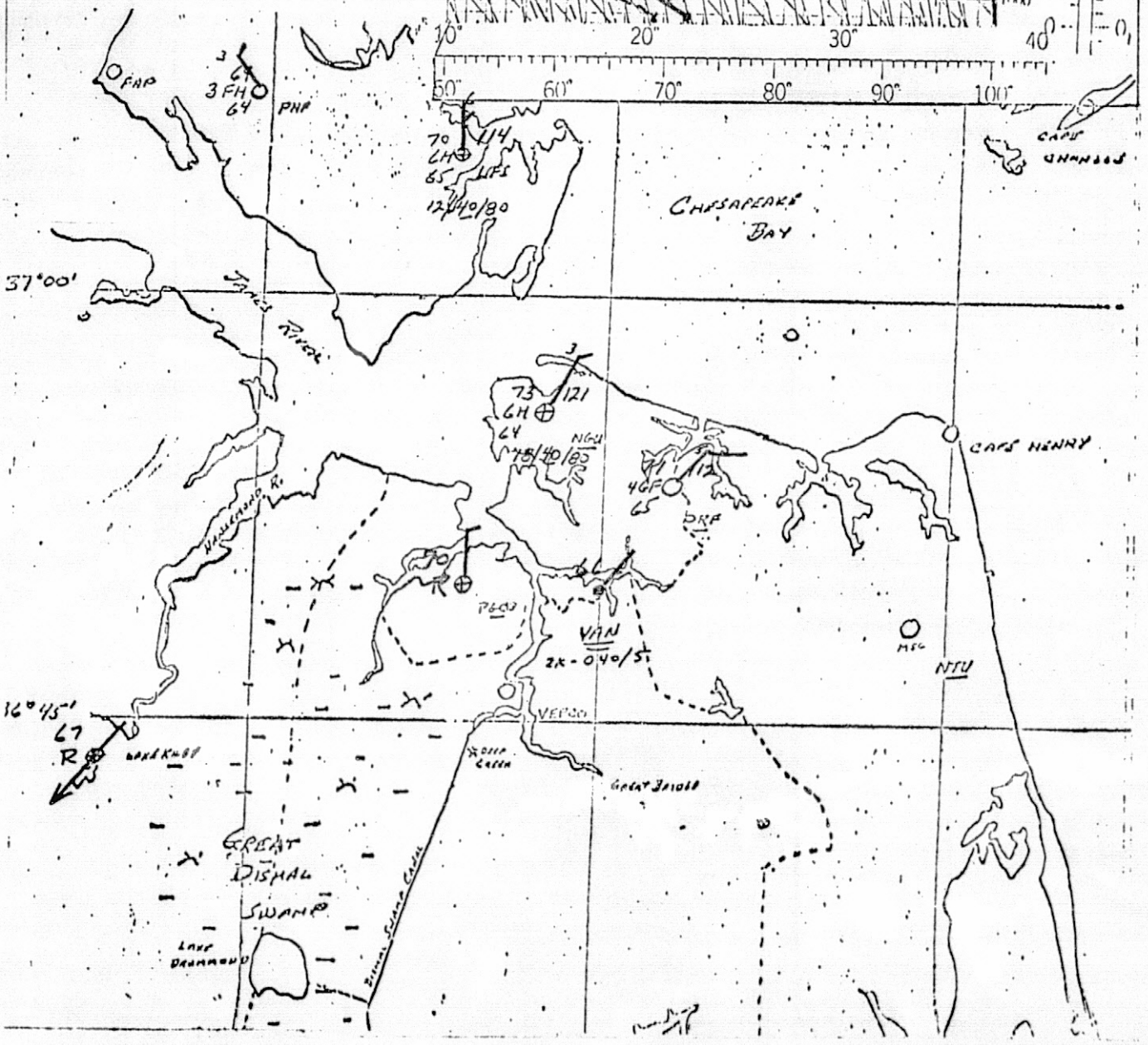

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463 N. MILITARY HIGHWAY
NORFOLK, VA. 23502
TELEPHONE: (804) 424-2846
TWX 710 881 1239

DATE: 6 JULY 75
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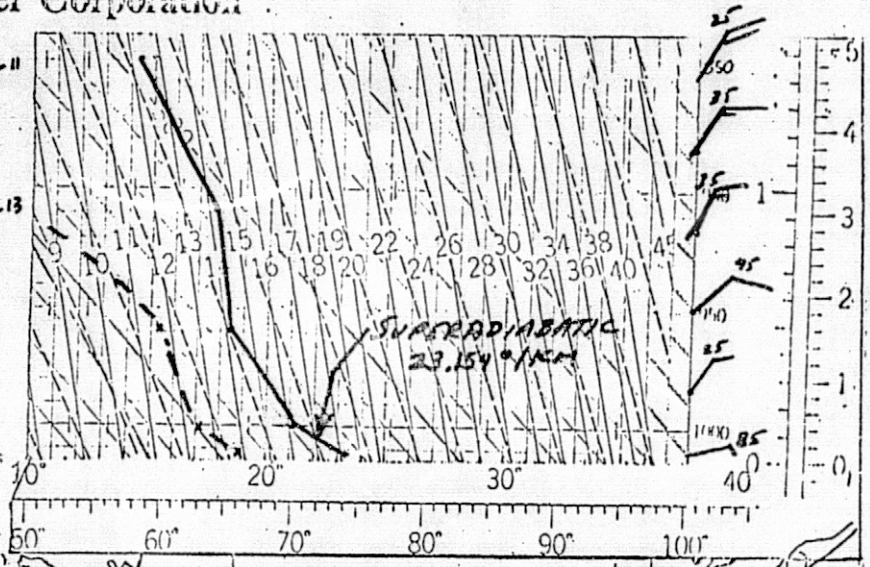

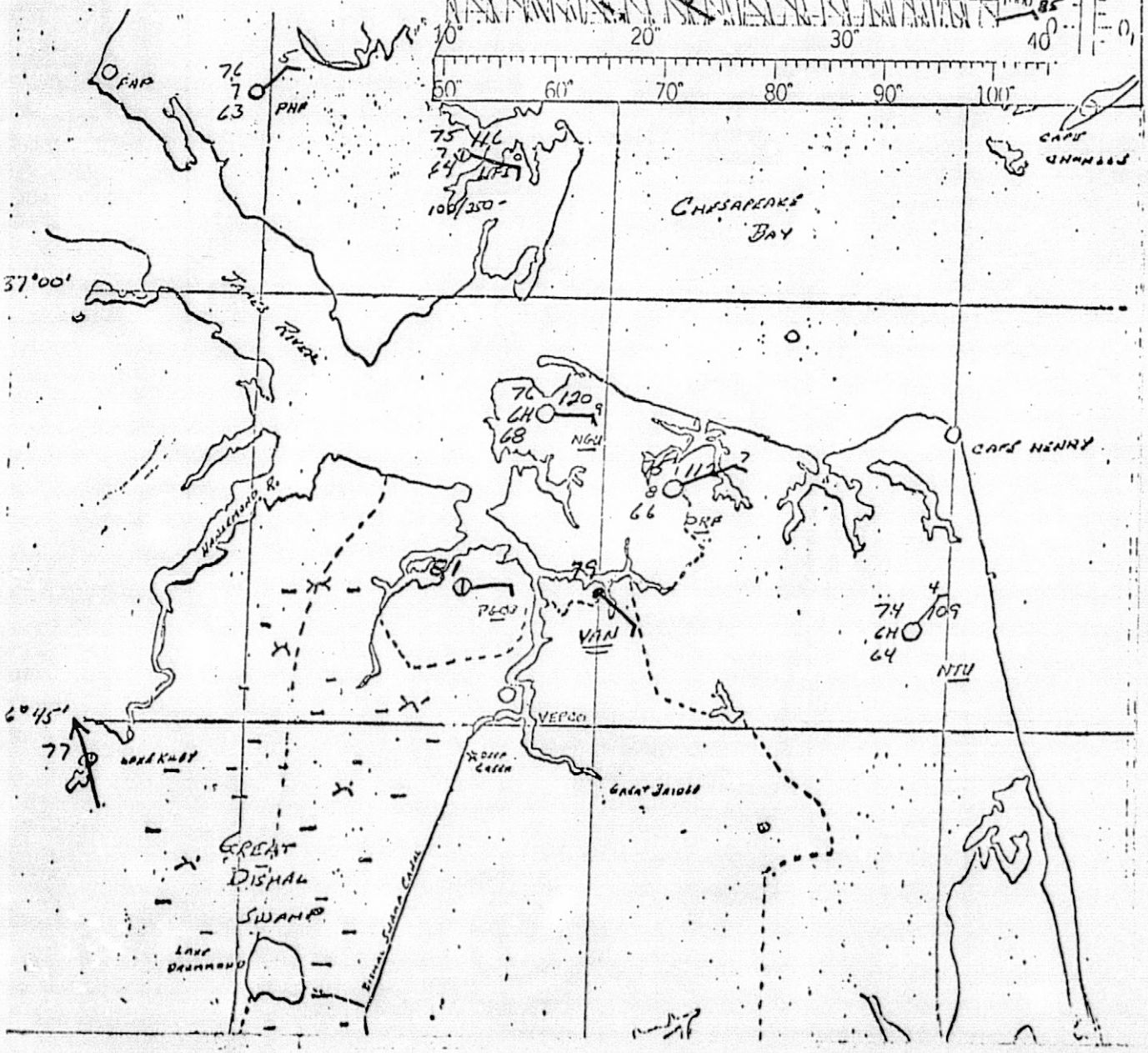

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DATE: 6 JULY 75
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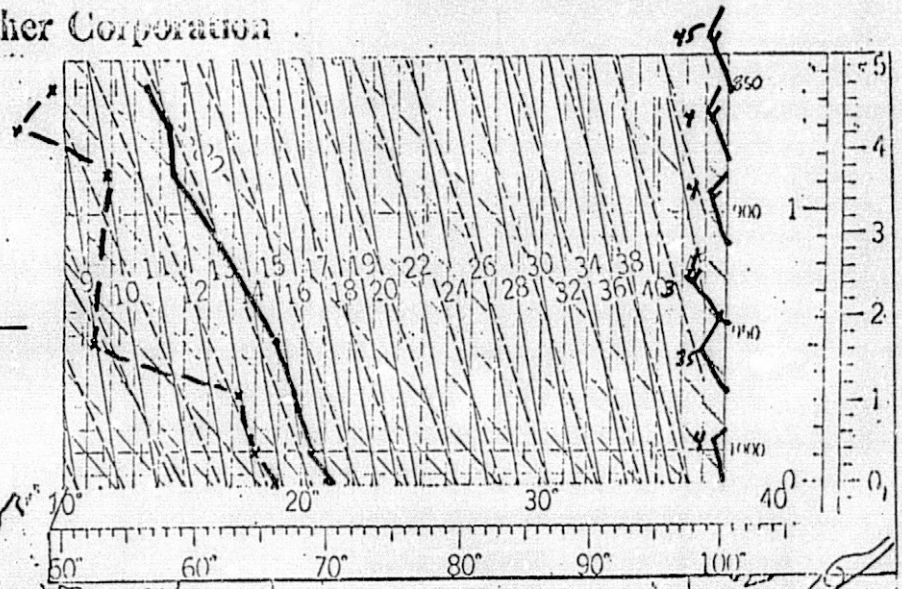

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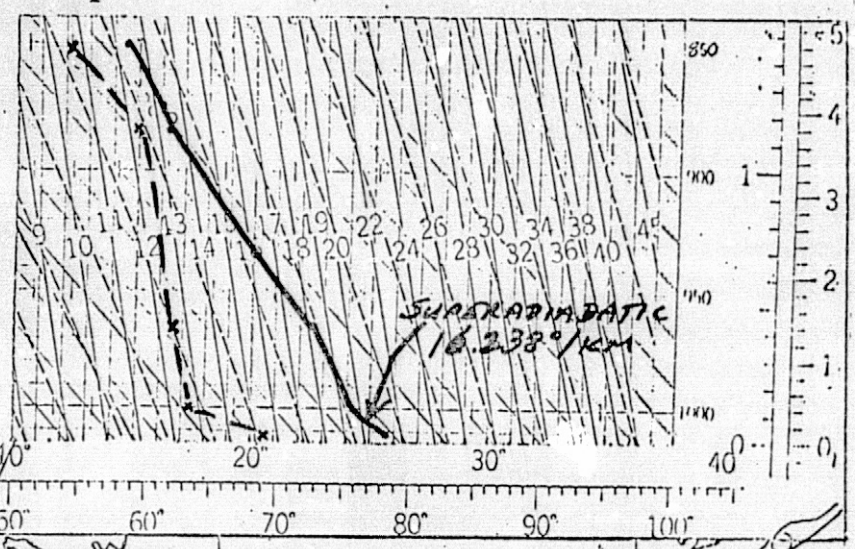
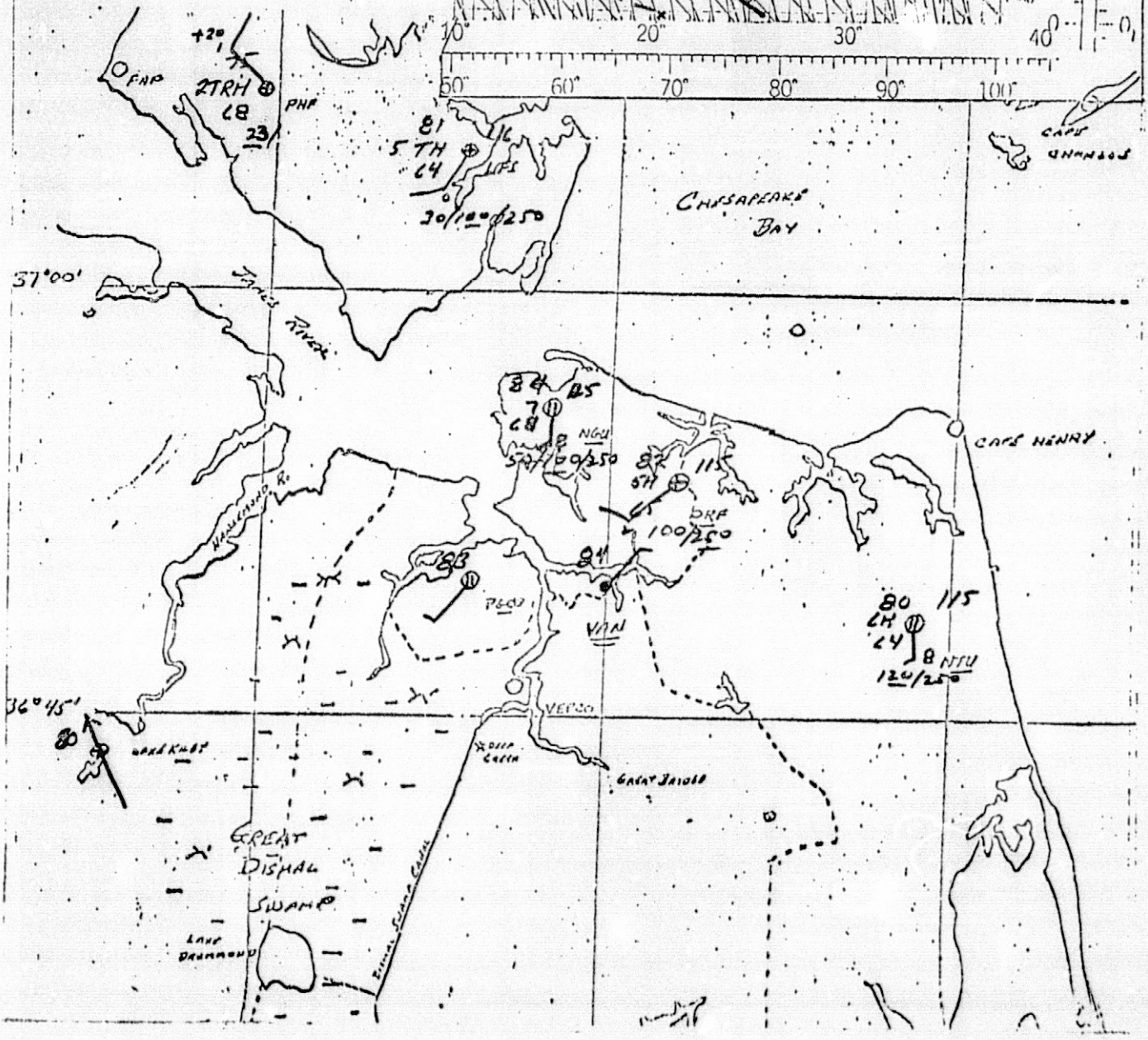
DATE: 7 JULY 75
00002





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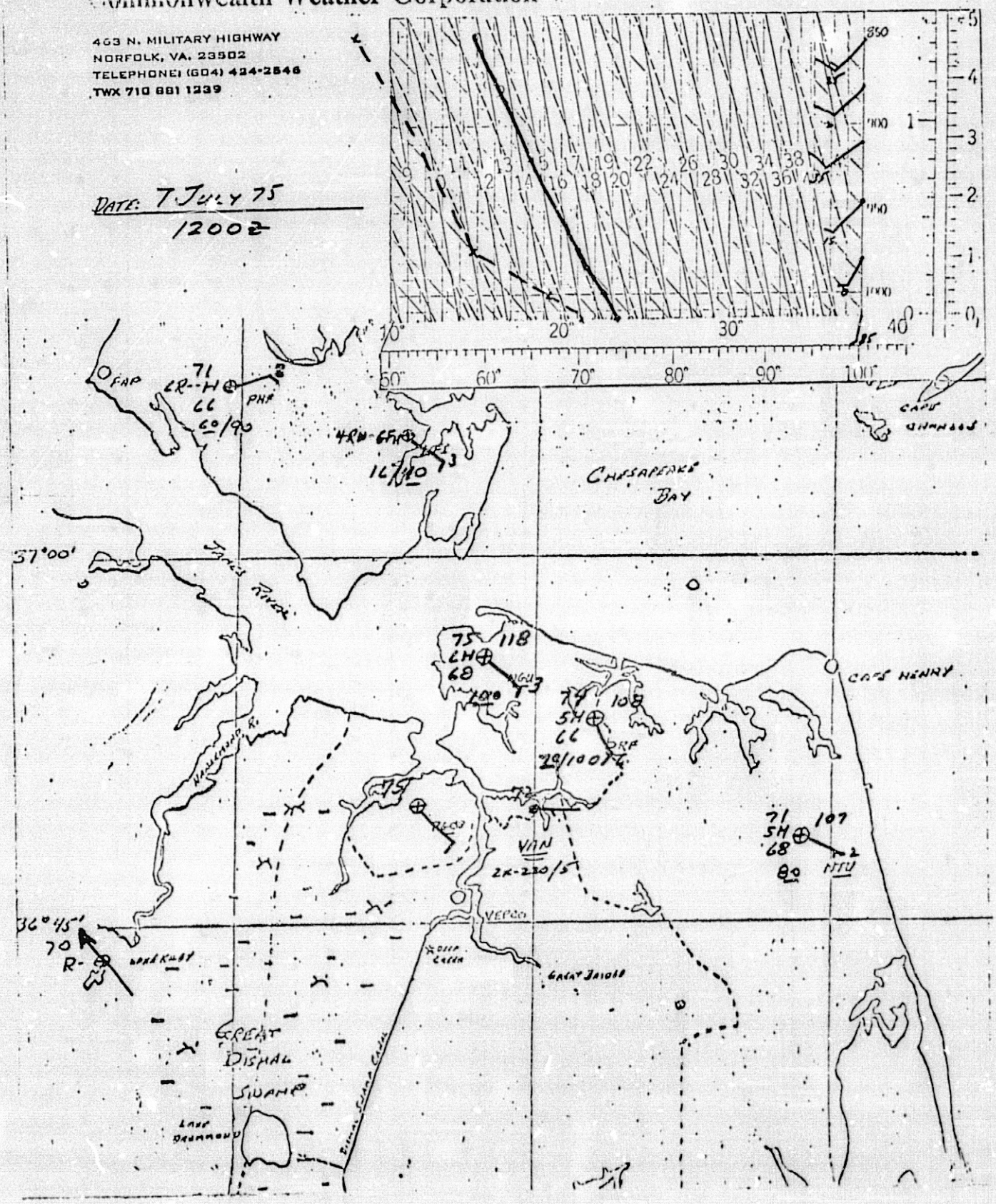
12002



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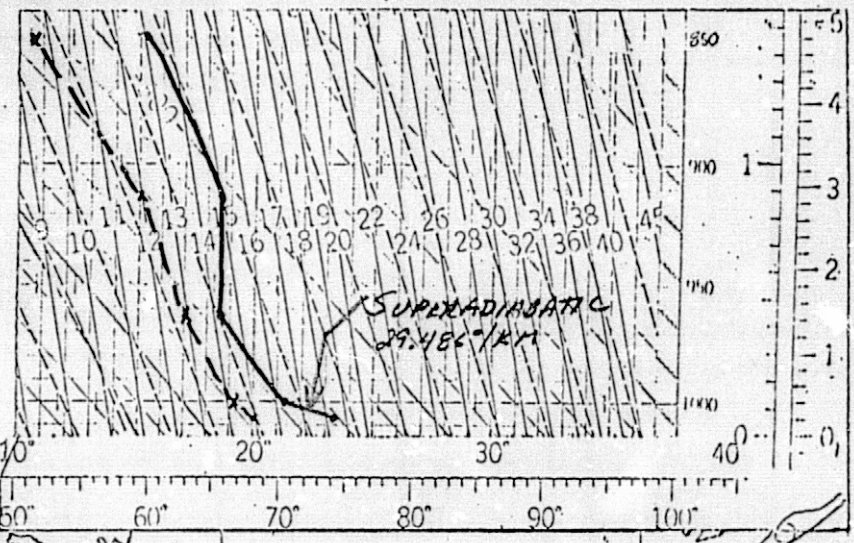

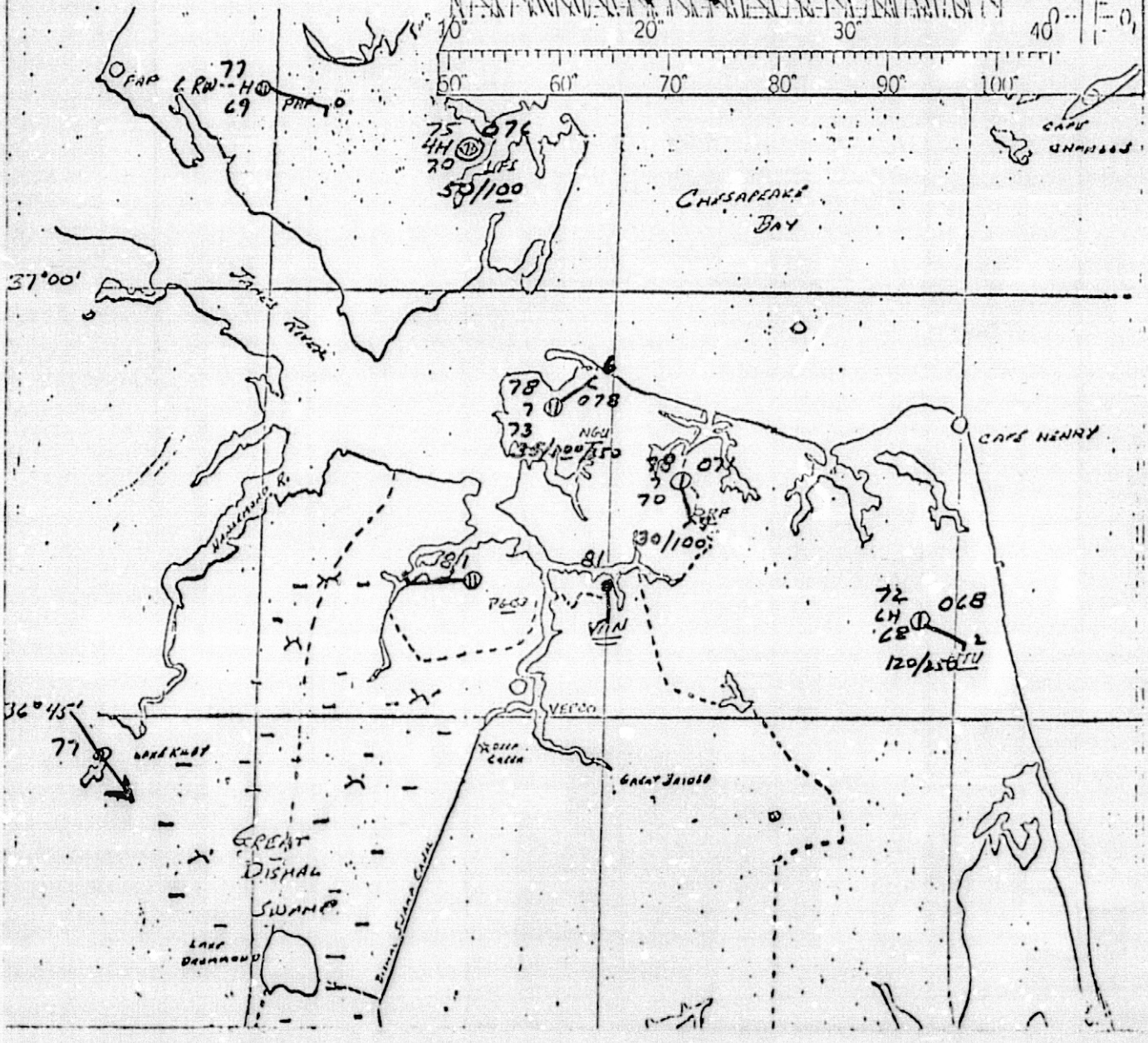

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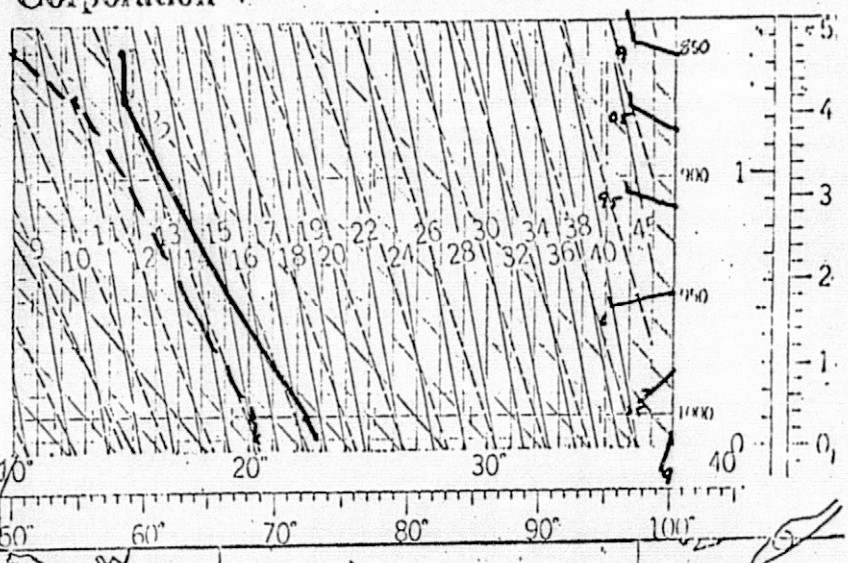

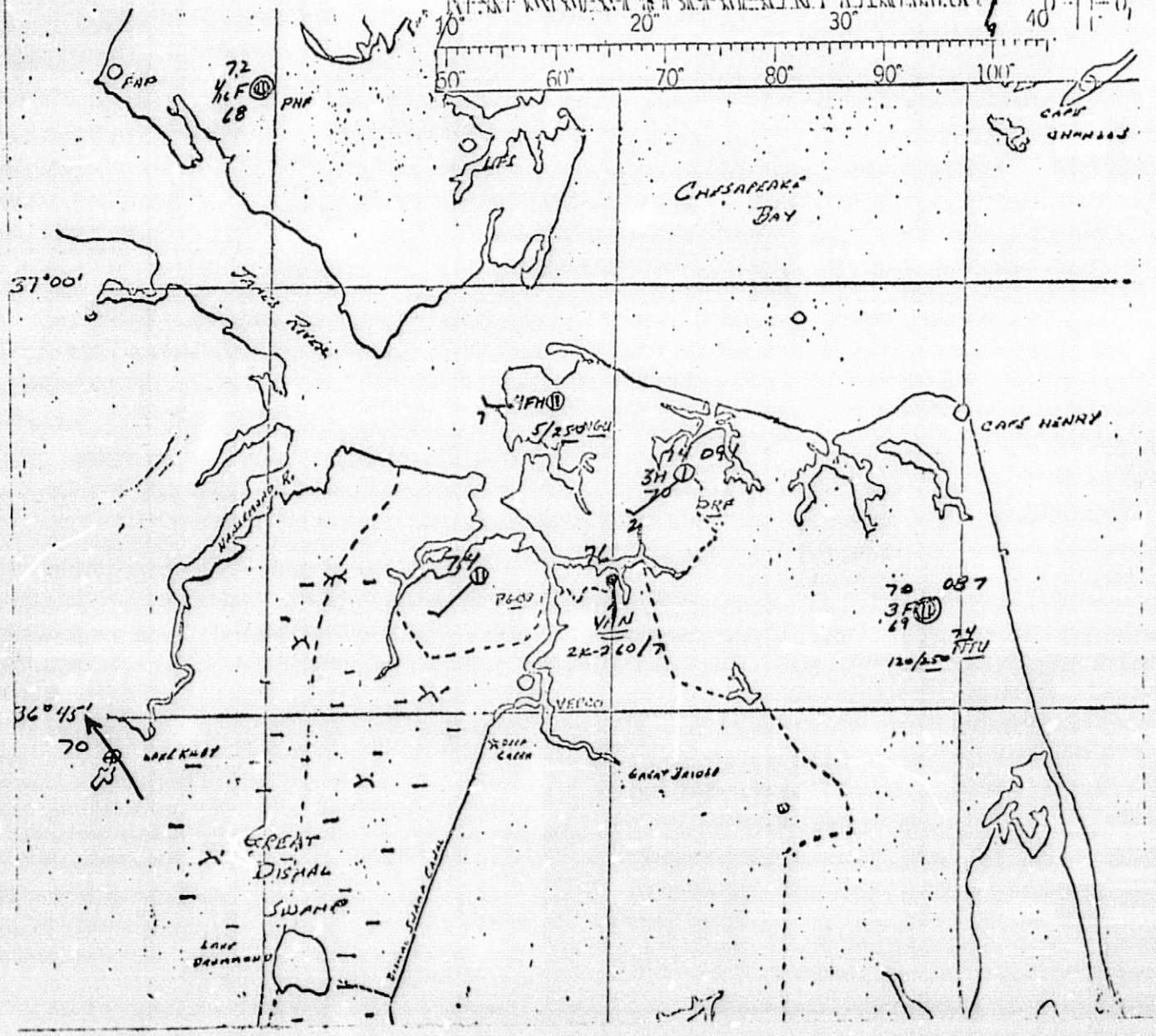

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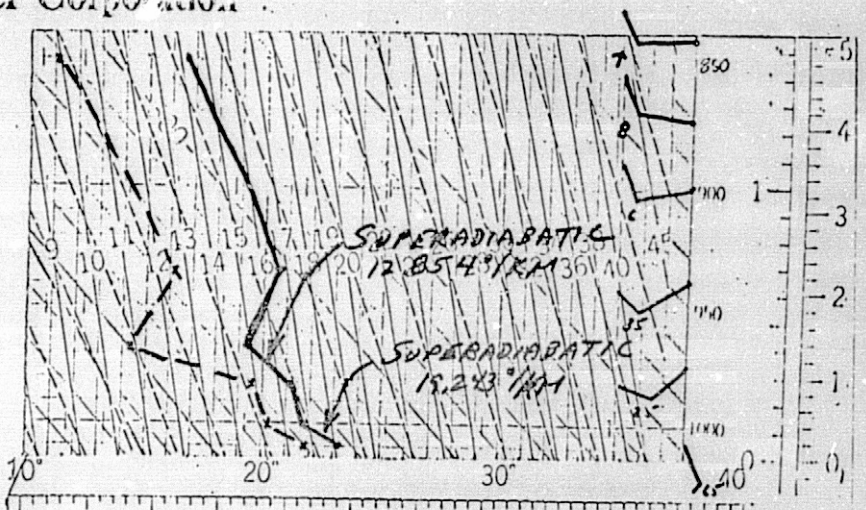

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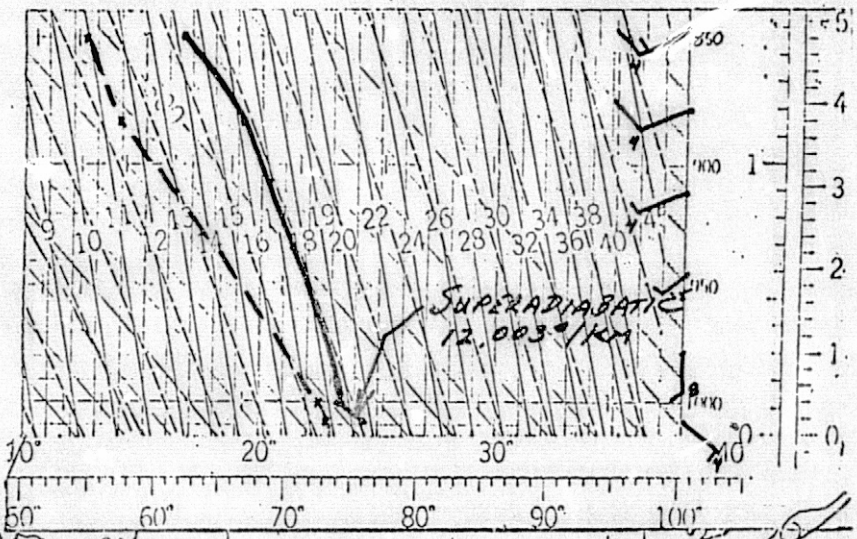

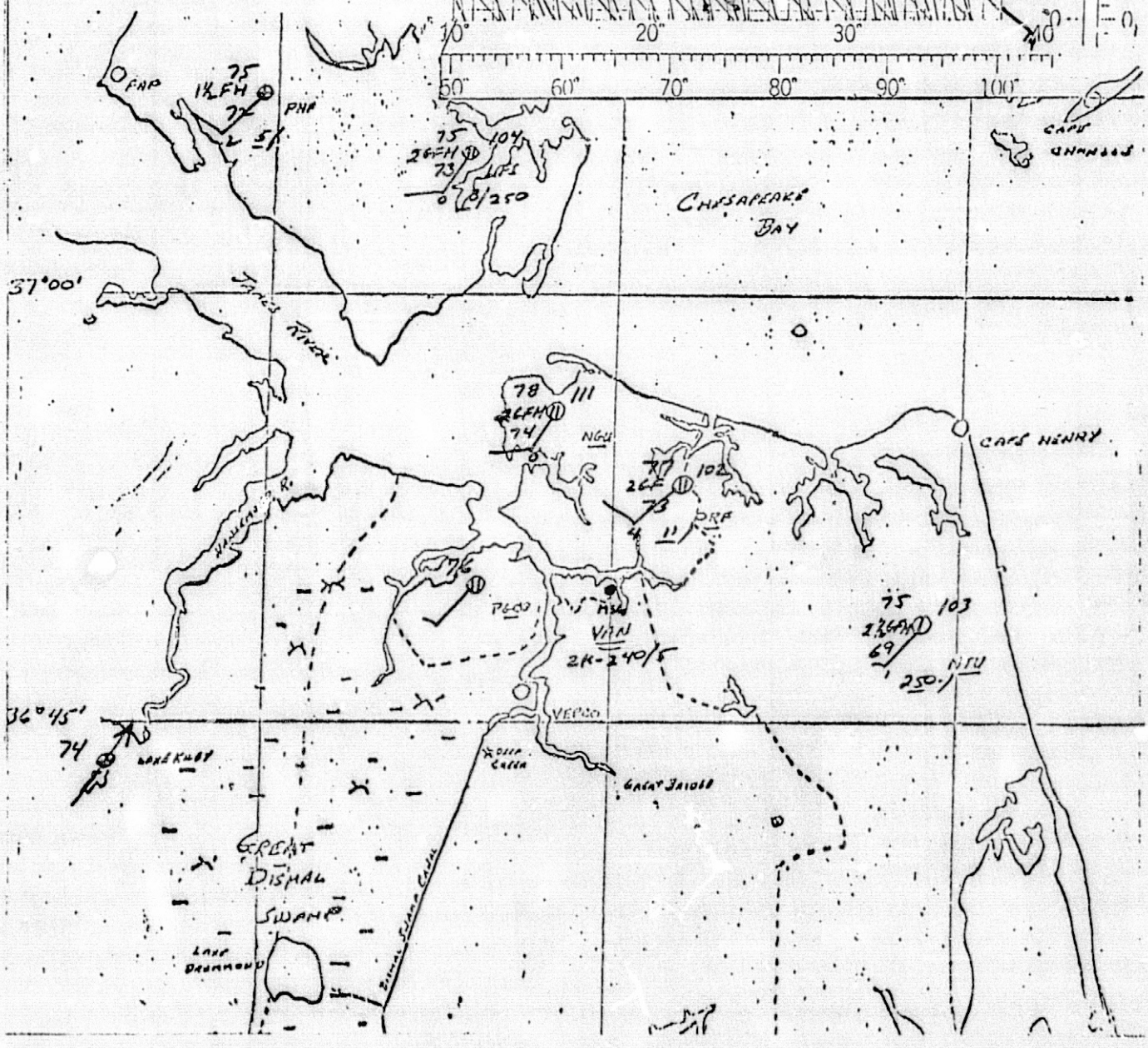

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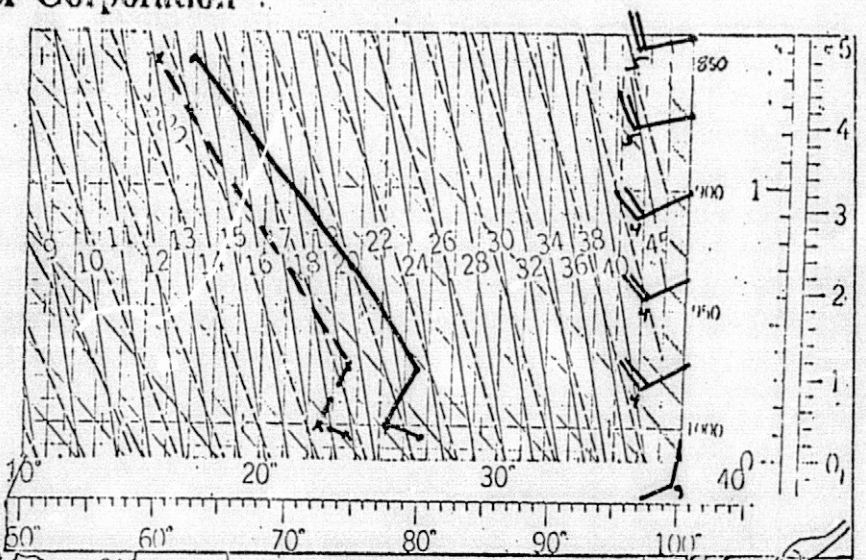

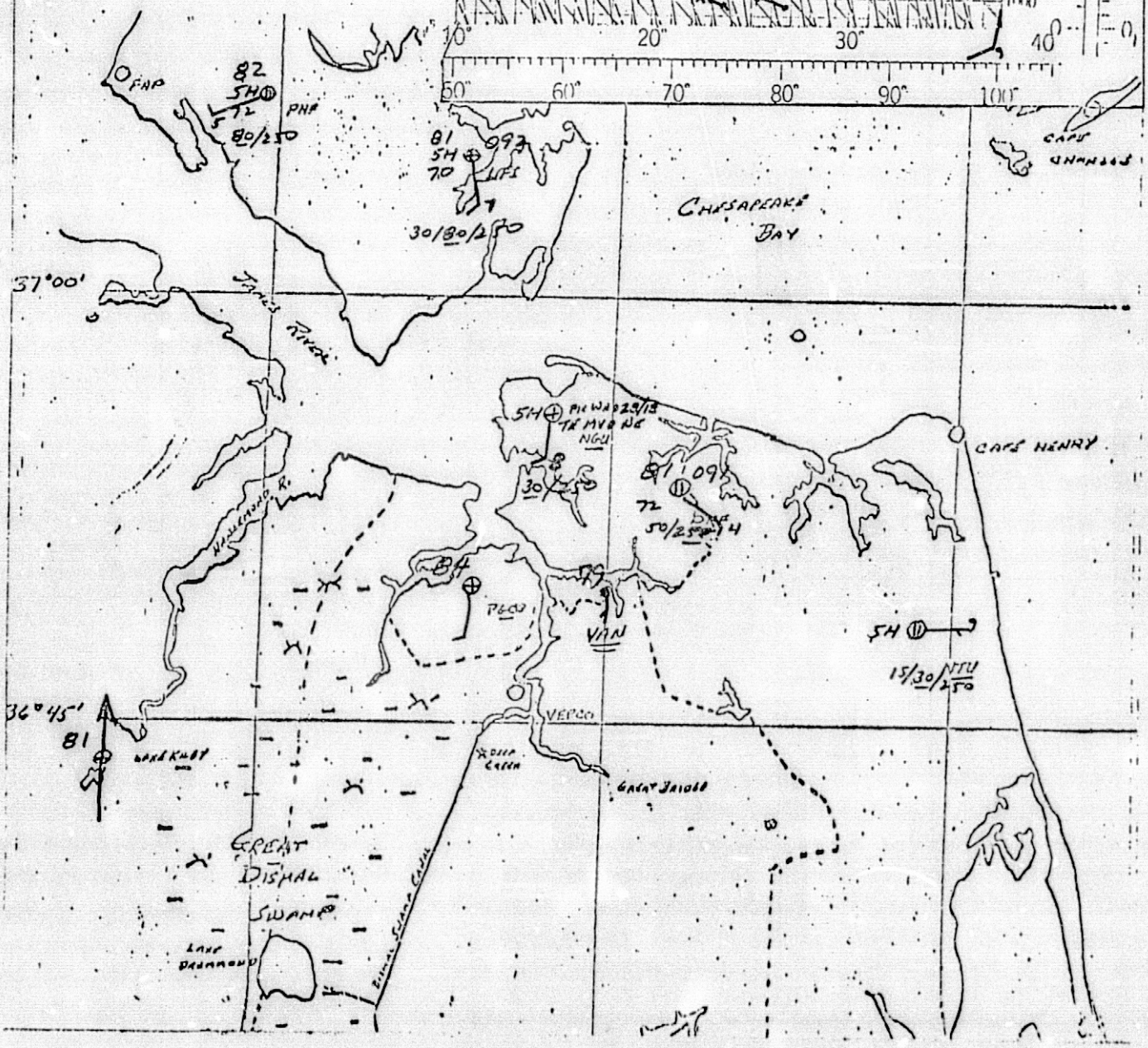

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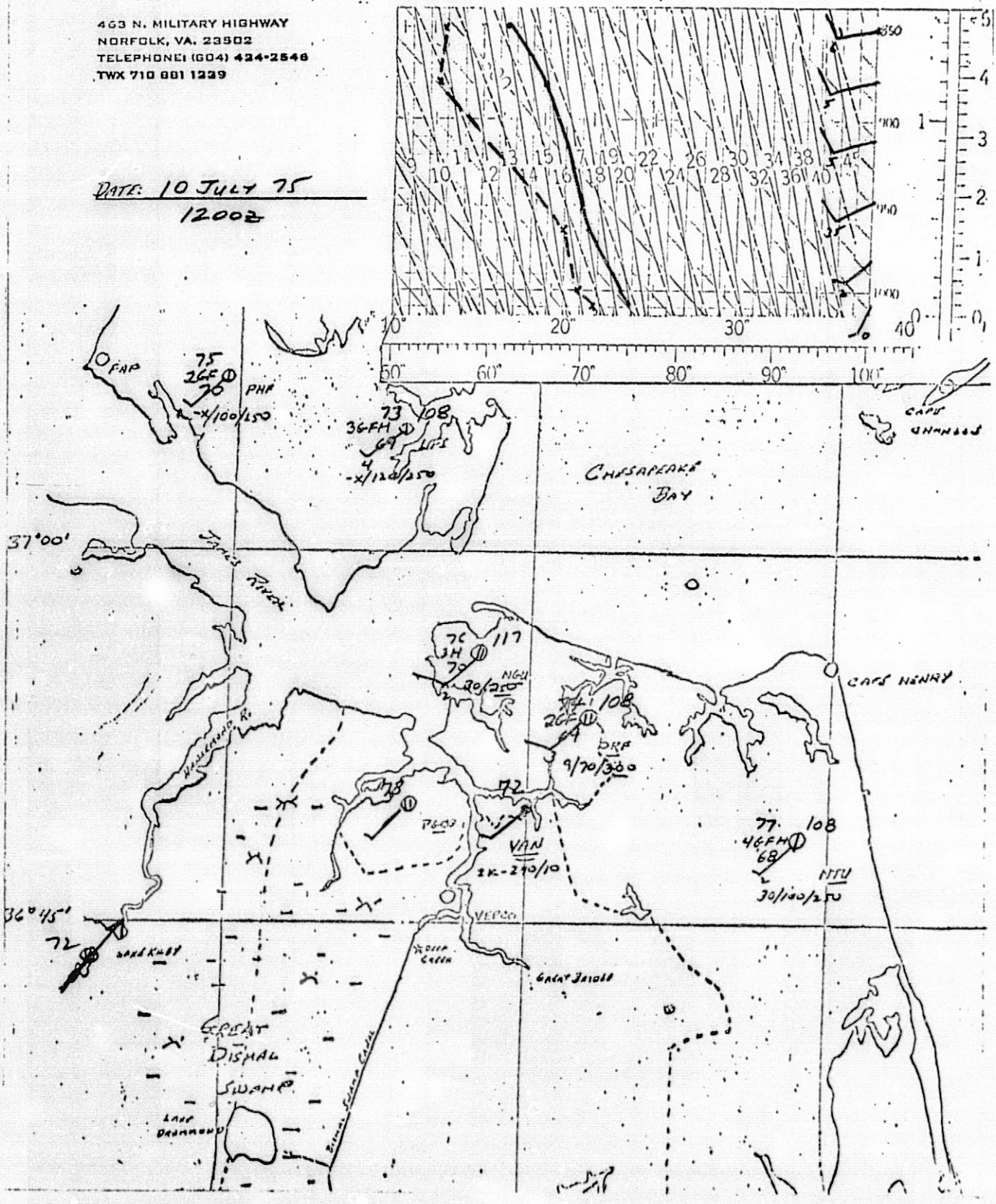
DATE: 10 JULY 75
12002



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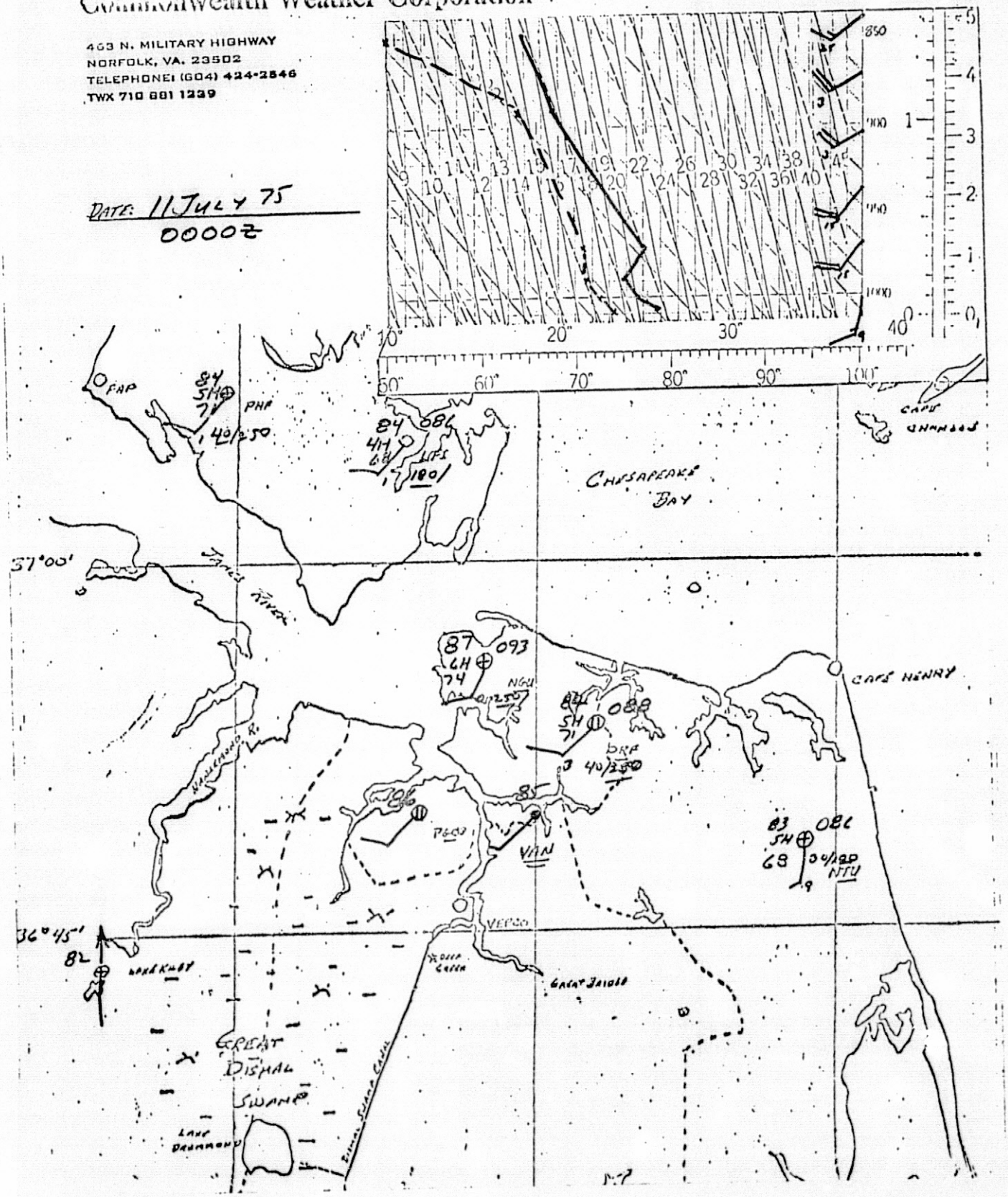
DATE: 11 JULY 75
00002



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TELEPHONE: (804) 424-2546
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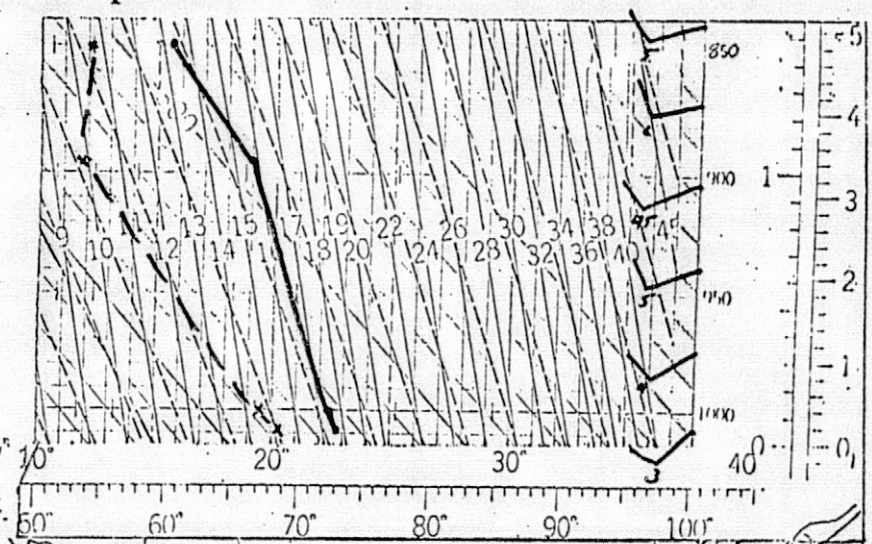
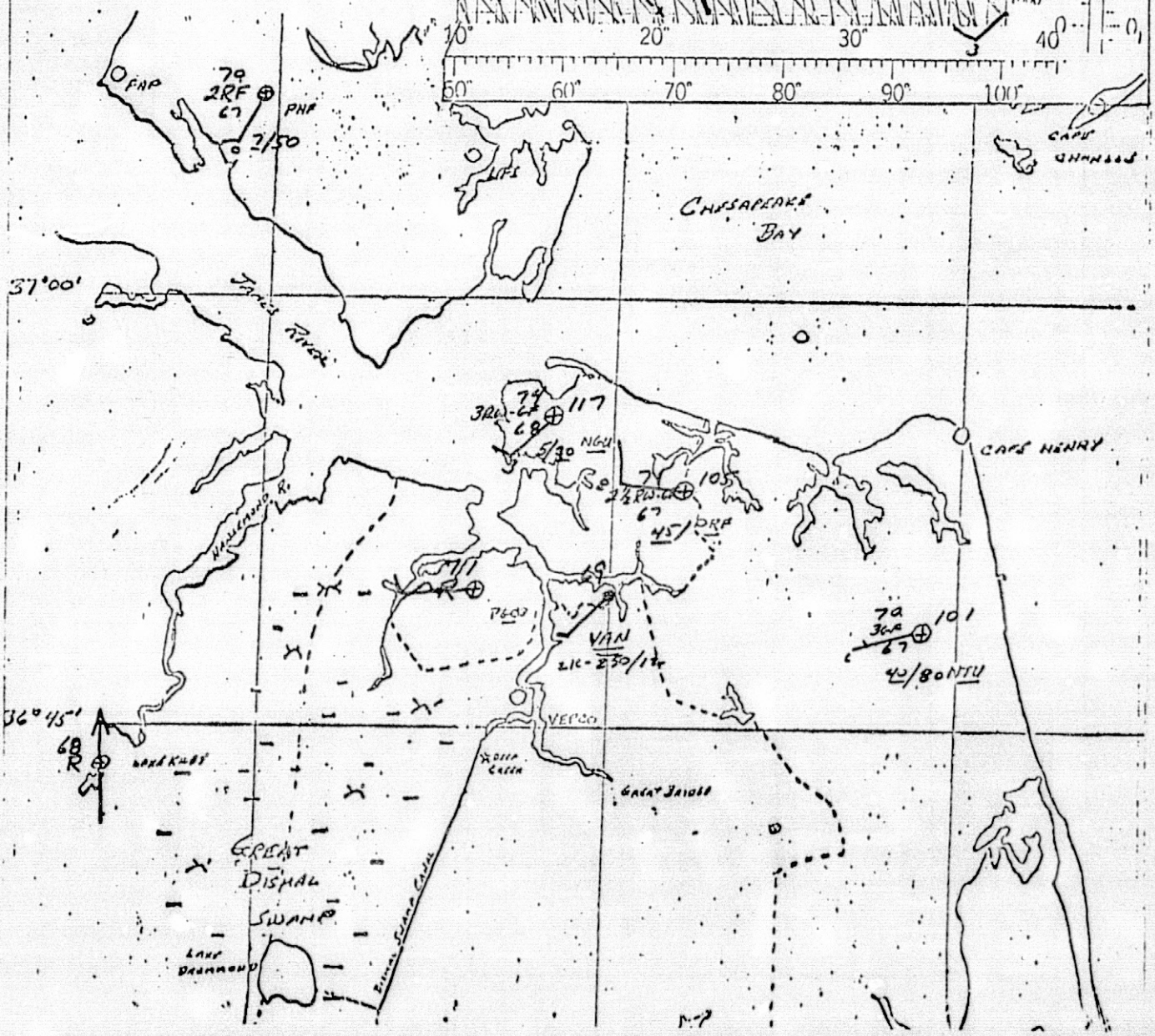
DATE: 11 JULY 75
12002





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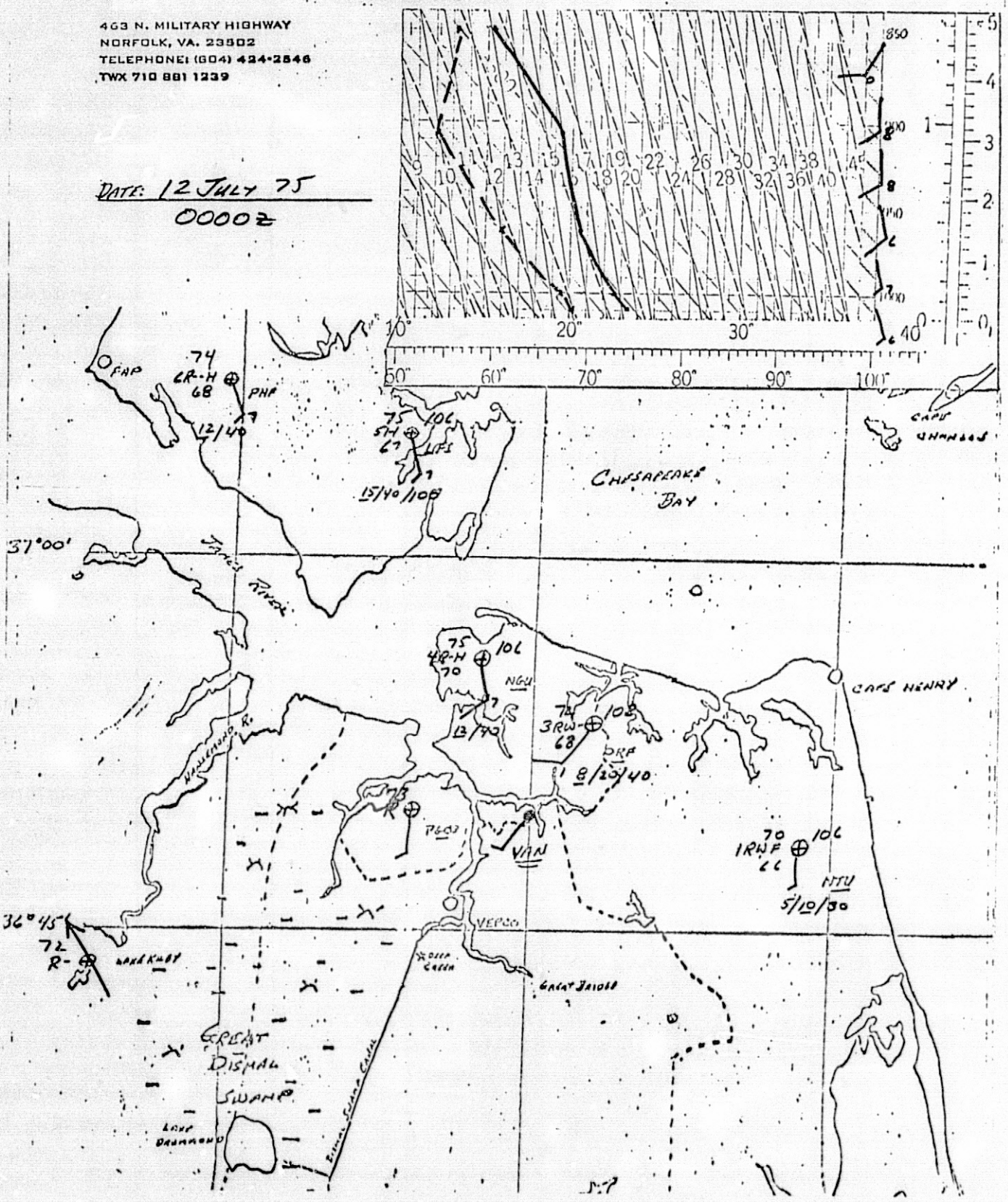

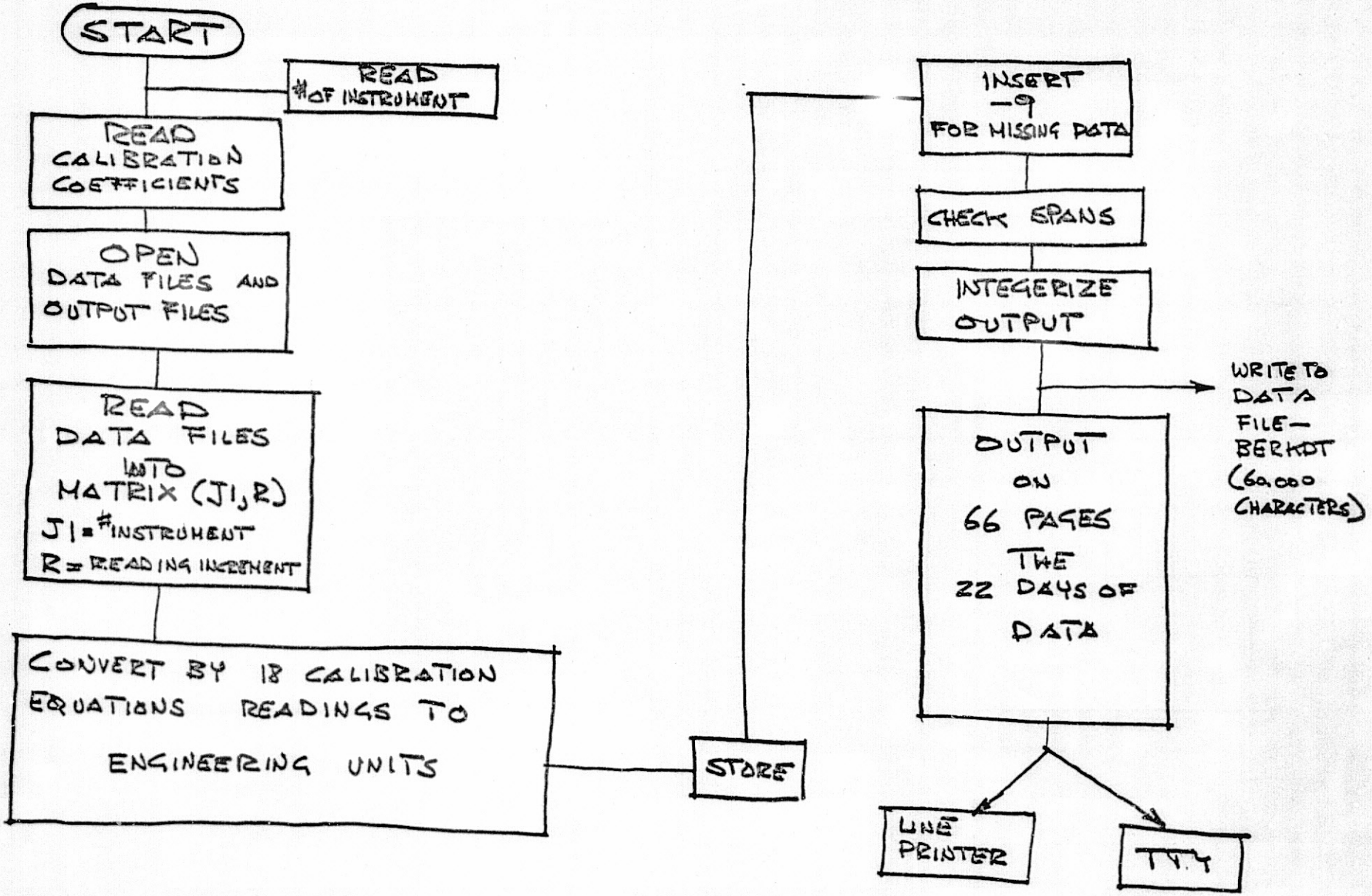

FIGURE ONE : FLOW DIAGRAM OF PROGRAM PLMOUT - WRITTEN IN BASIC

```
READY
OLD
OLD FILE NAME--PLMOUT

READY
LIST


PLMOUT          12:00          27-AUG-75


10 DIM A1$(25)
15 DIM S(528)
20 DIM A(35)
30 DIM K1(25)
40 DIM C(18,550)
50 RESTORE
60 F1=5
70 L=15
80 REM READ IN CALIBRATION COEFFICIENTS
90 FOR K=1 TO 2*L
100 READ A(K)
110 NEXT K
120 DATA .4079802,.4035995,.01058665,-1.35,.01058665,-1.35
130 DATA 1.711214,.9272089,4.542258,.050855,.5,0
140 DATA .5021172,.8705642,1,1,1,0
150 DATA .03504743,5.5053,7.941E-3,0,1,0
160 DATA 45,0,1,0,4.5E-7,0
170 FILES OZTHM,TSRSNO,N2AHRH,TPSRWS,WDCHBS
180 FILES BERKDT
190 FOR I1=1 TO F1
200 FOR J1=3*I1-2 TO 3*I1
210 READ #I1,A1$(J1)
220 READ #I1,K1(J1)
230 GOTO 250
240 PRINT A1$(J1);" HAS ";K1(J1);"ENTERIES"
250 FOR R= 1 TO K1(J1)
260 READ #I1,C(J1,R)
270 NEXT R
280 NEXT J1
290 NEXT I1
300 N2=528
310 REM DO CALCULATIONS OF THE ENGINEERING UNITS
320 FOR L1=1 TO 3
330 FOR R=1 TO K1(L1)
340 IF C(L1,R)<=0 THEN 370
350 C(L1,R)=A(2*L1-1)*C(L1,R)+A(2*L1)
360 GOTO 380
370 C(L1,R)=-9
380 NEXT R
390 NEXT L1
400 FOR L1=4 TO 5
410 FOR R=1 TO K1(L1)
420 IF C(L1,R)<0 THEN 450
430 C(L1,R)=A(2*L1-1)*C(L1,R)**A(2*L1)
440 GOTO 460
450 C(L1,R)=-9
460 NEXT R
470 NEXT L1
```

```
480 FOR L1=6 TO 7
490 FOR R=1 TO K1(L1)
500 IF C(L1,R)<=0 THEN 530
510 C(L1,R)=A(2*L1-1)*C(L1,R)+A(2*L1)
520 GOTO 540
530 C(L1,R)=-9
540 NEXT R
550 NEXT L1
560 FOR L1=9 TO 15
570 FOR R=1 TO K1(L1)
580 IF C(L1,R)<0 THEN 610
590 C(L1,R)=A(2*L1-1)*C(L1,R)+A(2*L1)
600 GOTO 620
610 C(L1,R)=-9
620 NEXT R
630 NEXT L1
640 E0=6.11
650 B=7.5
660 C=237.3
670 FOR R=1 TO N2
680 IF C(9,R)<0 THEN 730
690 IF C(10,R)<0 THEN 730
700 C(8,R)=217*C(9,R)*E0*10**(B*C(10,R)/(C+C(10,R)))
710 C(8,R)=C(8,R)/(100*(273.16+C(10,R)))
720 GOTO 740
730 C(8,R)=-9
740 IF C(2,R)<=0 THEN 780
750 IF C(3,R)<=0 THEN 780
760 C(16,R)=C(2,R)-C(3,R)
770 GOTO 790
780 C(16,R)=-9
790 IF C(10,R)<0 THEN 820
800 C(17,R)=1.8*C(10,R)+32
810 GOTO 830
820 C(17,R)=-9
830 IF C(15,R)<0 THEN 860
840 C(18,R)=.38*C(15,R)
850 GOTO 870
860 C(18,R)=-9
870 C(1,R)=INT(C(1,R))
880 C(2,R)=INT(1000*C(2,R))
890 C(3,R)=INT(1000*C(3,R))
900 C(16,R)=INT(1000*C(16,R))
910 C(4,R)=INT(C(4,R))
920 C(5,R)=INT(C(5,R))
930 C(6,R)=INT(C(6,R))
940 C(7,R)=INT(C(7,R))
950 C(18,R)=INT(1.E+6*C(18,R))
960 C(11,R)=(INT(C(11,R)*10+.5))/10
970 C(8,R)=(INT(C(8,R)*100+.5))/100
980 C(10,R)=(INT(C(10,R)*10+.5))/10
990 C(17,R)=(INT(C(17,R)*10+.5))/10
1000 C(15,R)=1.E-6*INT(C(15,R)*1.E+6+.5)
1005 C(15,R)=1.E+3*C(15,R)
1010 NEXT R
1020 REM CHANGE THE COH DATA
1045 FOR R=1 TO N2/2
```

```
1045 FOR R=1 TO N2
1050 S(2*R-1)=C(14,R)
1055 S(2*R)=C(14,R)
1060 NEXT R
1062 FOR R=1 TO N2
1063 C(14,R)=S(R)
1064 NEXT R
1100 REM PUT -9 IN THE SUL DATA IF CONC<0 ;IE IF C=-9000
1110 FOR R=1 TO N2
1115 IF C(2,R)<0 THEN 1130
1120 GOTO 1140
1130 C(2,R)=C(3,R)=C(16,R)=-9
1140 NEXT R
1500 SCRATCH #6
1510 FOR L=1 TO 18
1520 WRITE #6,A1$(L)
1525 WRITE #6,528
1530 FOR I=1 TO 22
1540 FOR J=1 TO 12
1550 K=24*(I-1)+J
1560WRITE #6,C(L,K);",";
1570 NEXT J
1580 FOR J=13 TO 24
1590 K=24*(I-1)+J
1600 WRITE#6,C(L,K);",";
1610 NEXT J
1620 WRITE #6,
1630 NEXT I
1640 NEXT L
1650 REM PRINTOUT OF THE FINAL RESULTS
1660 MARGIN130
1670 FOR G=1 TO 1
1680 FOR I=1 TO 22
1690 PRINT
1700 PRINT ,,,"PAGE ";I;"-";G
1710 PRINT
1720 PRINT
1730 PRINT ,,"PLYMOUTH PARK EXPERIMENT"
1740 PRINT ,,"OLD DOMINION UNIVERSITY"
1750 PRINT ,,"ATMOSPHERIC RESEARCH GROUP"
1760 PRINT
1770 IF I<= 11 THEN 1800
1780 PRINT ,,,"JULY ";I-11," ,  1975"
1790 GO TO 1810
1800 PRINT ,,,"JUNE ";I+19;",  1975"
1810 REM
1820 PRINT
1830 IF G=2 THEN 2030
1840 IF G=3 THEN 2140
1850 PRINT "TIME","OZONE","TOTAL H.C.","METHANE","H.C.-CH4";
1860 PRINT ,"TOTAL SULFUR","RED. SULFUR","TIME"
1870 PRINT"EDT",,,,,,,"EDT"
1880 PRINT "HOURS","PPB","PPB","PPB","PPB","PPB","PPB","HOURS"
1890 PRINT
1900 FOR J=1 TO 24
1910 P=24*(I-1)+J
1920 PRINT J-1;"-";J,C(1,P),C(2,P),C(3,P),C(16,P),C(4,P),C(5,P);
```

```
1930 PRINT ,J-1;"-";J
1940 PRINT
1950 NEXT J
1960 PRINT
1970 PRINT
1980 PRINT
1990 PRINT
2000 NEXT I
2010 NEXT G
2020 STOP
2030 PRINT "TIME","NO","NO2","ABS. HUM.","REL. HUM.";
2040 PRINT ,"TEMP","TEMP","TIME"
2050 PRINT "EDT",,,,,,,"EDT"
2060 PRINT "HOUR","PPB","PPB","G/M↑3","%","C","F","HOUR"
2070 PRINT
2080 FOR J=1 TO 24
2090 P=24*(I-1)+J
2100 PRINT J-1;"-";J,C(6,P),C(7,P),C(8,P),C(9,P),C(10,P),C(17,P),J-1;"-"
;J
2110 PRINT
2120 NEXT J
2130 GO TO 2000
2140 PRINT "TIME","SOLAR RAD","WIND SPEED","WIND DIR.","C O H";
2150 PRINT ,"B SCAT","MASS LOAD","TIME"
2160 PRINT "EDT",,,,,,,"EDT"
2170 PRINT "HOURS","LANGLIES"," MILES /HR","DEGREES","UNITS";
2180 PRINT ," KM**-1"," UG/M**3","HOURS"
2190 PRINT
2200 FOR J=1 TO 24
2210 P=24*(I-1)+J
2220 PRINT J-1;"-";J,C(11,P),C(12,P),C(13,P),C(14,P),C(15,P),C(18,P),J-1
;"-";J
2230 PRINT
2240 NEXT J
2250 GO TO 2000
2260 END

READY
```

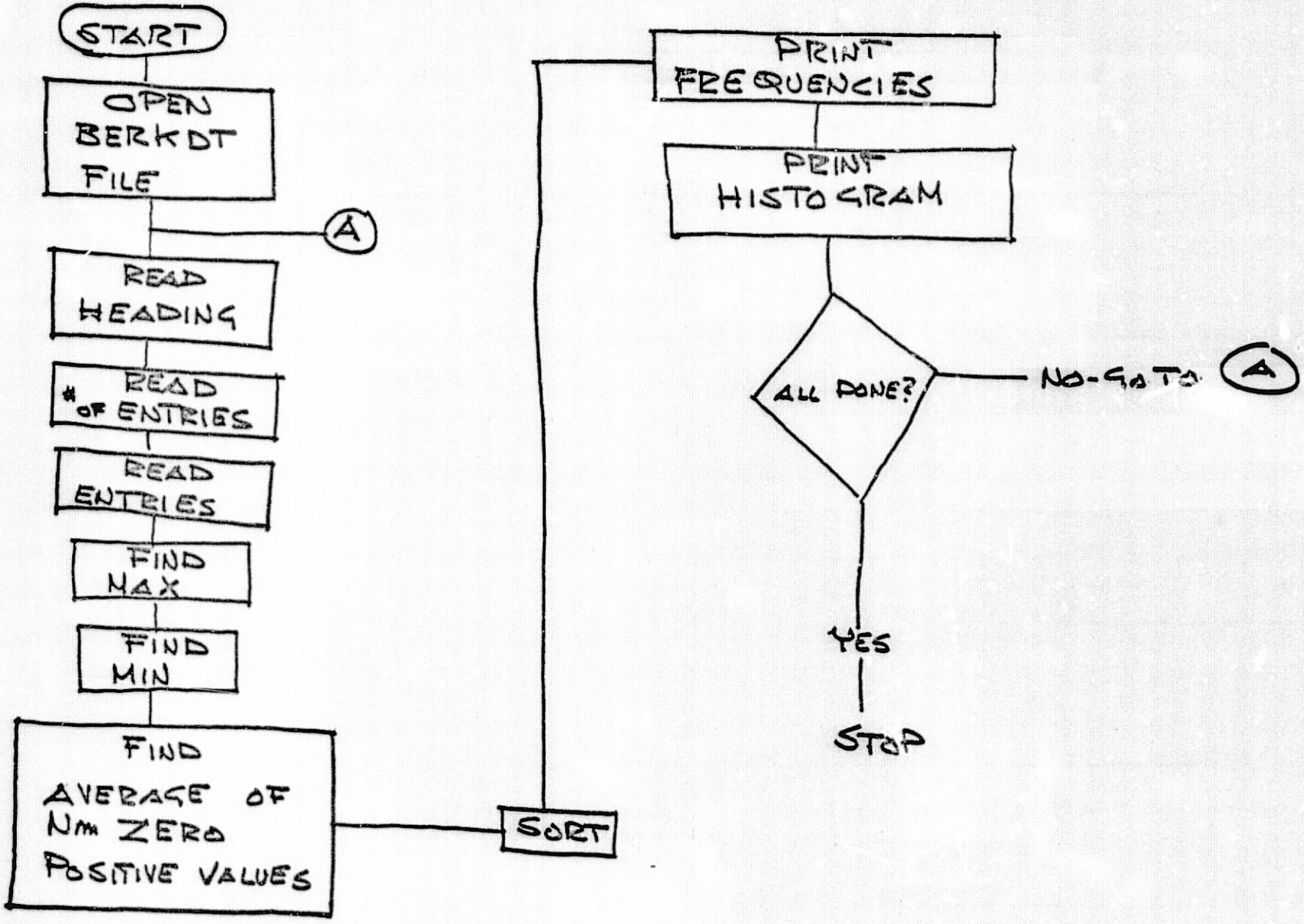

FIGURE TWO: FLOW DIAGRAM OF HISTO - WRITTEN IN BASIC

```
OLD
OLD FILE NAME--HISTO

READY
LIST

HISTO          12:09          27-AUG-75


20 PRINT ; "  "
30 FORK=1 TO 10
31 PRINT
32 NEXT K
50 DIM H(50),B(50)
70 FOR L=1 TO 18
100 DIM X(600)
105 A1=0
110 FILES ANE
120 READ #1,A$
121 READ #1,B$
123 PRINT A$;"     ";B$
125 READ #1,N
126 FOR I=1 TON
130 READ #1,X(I)
140 NEXT I
150 IF L<13 THEN 940
160 GO SUB 1000
170 GO SUB 1100
180 PRINT "THE RANGE OF VALUES IS ";M1-M2
185 PRINT "THERE ARE ";N-Z1;"NON-NEGATIVE VALUES"
188 A1=A1/(N-Z1)
190 PRINT " THE AVERAGE VALUE  IS ";A1
195 PRINT "   THIS COUNTS ONLY POSITIVE VALUES IN THE AVERAGE!!!"
200 PRINT "INPUT THE  NUMBER OF BINS TO SORT DATA"
201 INPUT N1
205 B(0)=M2
210 FOR J=1 TO N1
215 H(J)=0
216 B(J)=M2+(M1-M2)*J/N1
220 NEXT J
250 FOR I=1 TO N
255 IF X(I)<0 THEN 300
260 FOR J=1 TO N1
270 IF X(I)<=B(J) THEN 280
275 GOTO 290
280 IF X(I)>=B(J-1) THEN 285
281 GOTO 290
285 H(J)=H(J)+1
290 NEXT J
```

```
300 NEXT I
320 PRINT
322 PRINT
324 PRINT "LOWER","NUMBER","UPPER"
330 FOR J=0 TO N1-1
340 PRINT B(J),H(J+1),B(J+1)
370 NEXT J
380 FOR K=1 TO 6
381 PRINT
382 NEXT K
390 MARGIN 132
396 FOR T=1 TO 6
397 PRINT
398 NEXT T
405 PRINT,,A$;"  ";B$;" HISTOGRAM"
410 PRINT ,,,"EACH *=1 HOURLY AVERAGE"
428 GO SUB 1300
430 PRINT B(0),">"
440 FOR J=1 TO N1
442 PRINT ,"I";
445 FOR K=0 TO H(J)-1
450 PRINT "*";
455 NEXT K
457 PRINT
460 PRINT B(J),">"
470 NEXT J
480 GOSUB 1300
910 FOR K=1 TO 15
920 PRINT
930 NEXT K
940 NEXT L
999 STOP
1000 REM FIND MAX OF DATA
1005 Z1=0
1010 M1=0
1015 FOR I=1 TO N
1016 IF X(I)<0 THEN 1055
1020 A1=A1+X(I)
1030 IF X(I)>M1 THEN 1050
1040 GOTO 1080
1050 M1=X(I)
1051 GOTO 1080
1055 Z1=Z1+1
1080 NEXT I
1090 PRINT "THE MAXIMUM VALUE OF THE DATA IS ";M1
1099 RETURN
1100 REM FIND MIN OF DATA
1105 M2=1
1110 FOR I=1 TO N
1115   IF X(I)<0 THEN 1150
1120 IF X(I)<M2 THEN 1140
1130 GOTO 1150
1140 M2=ABS(X(I))
1150 NEXT I
1160 PRINT "THE MINIMUM OF THE ABS. VALUES OF THE DATA IS ";M2
1199 RETURN
1300 PRINT,"I....I....I....I....I....I....I....I....I....I....I....I....
I";
1301 PRINT"....I....I....I....I....I....>"
1302 RETURN
99999 END
```